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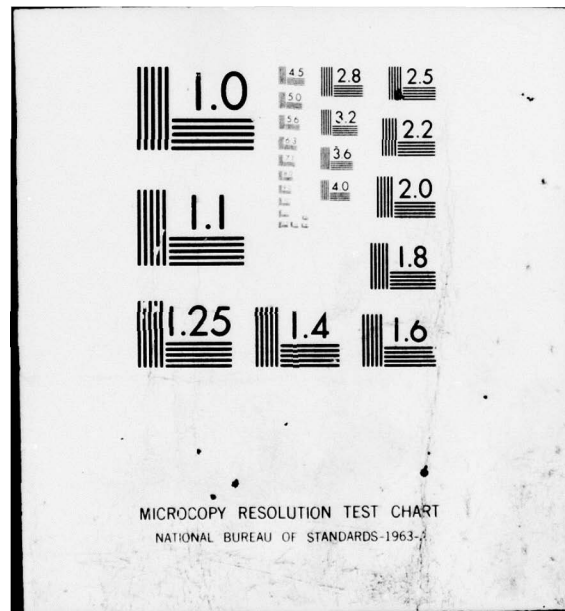
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The Commercial Non-Developmental Items of Law Enforcement Equipment (CNDI-LEE) Final Report has been prepared to determine items of commercially available law enforcement equipment which are necessary to improve the operational effectiveness and safety of the military police. The report includes the following recommendations: (1) To transfer Army CNDI-LEE findings; (2) A proposal for fleet law enforcement vehicle rentals; (3) A prioritize listing of law enforcement equipment that should be standardized and programed for procurement; and (4) Additional follow-on-evaluations for specific law enforcement equipment.		

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Data to support these recommendations was obtained by visitations to key DARCOM, TRADOC, and FORSCOM installations through interviews with various military personnel, to include provost marshals, military police, Inspector General, Supply and Procurement officers, and interviews with juxtapositioned civilian law enforcement agencies.

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COMMERCIAL NON-DEVELOPMENTAL
ITEMS OF LAW ENFORCEMENT EQUIPMENT

FINAL REPORT

Volume I

19 August 1979

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Submitted to:

U.S. Military Police School/Training Center
Directorate of Combat Development
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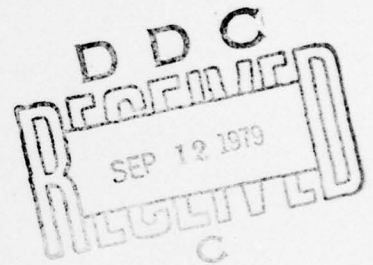
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COMMERCIAL NON-DEVELOPMENTAL
ITEMS OF LAW ENFORCEMENT EQUIPMENT

FINAL REPORT

Volume I

NOTICES

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- *The use of trade names in this Report does not constitute an official indorsement of that particular product by the Department of the Army or Science Applications, Inc.*
- *In order to obtain open and candid opinions from persons of all ranks during the study, remarks are not attributed to individuals nor are they identified, as a general rule, as originating at a particular installation.*



ACKNOWLEDGEMENTS

- *This study was initiated and monitored by Directorate of Combat Developments, Test and Evaluation Coordination Office, US Army Military Police School/Training Center, Ft. McClellan, Alabama. The study was performed by Science Applications, Inc.*
- *The Science Applications, Inc., Study Team included Rowland B. Shriver, Jr., Principal Investigator (Team Chief), Kathleen M. Nardini, Dr. Briggs J. White, and Peter R. Nowak.*
- *The Law Enforcement Standards Laboratory of the National Bureau of Standards contributed immeasurably to the study, both with advice and with NBS study/test results and reports, many of which were extracted and are included in this report.*



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MAIN REPORT



1. INTRODUCTION

PROBLEM

The U.S. Army Military Police Corps faces a unique problem unlike most other elements of the Army. Not only must it be constantly prepared to carry out its mission and functions in time of war; but also, and perhaps with more visibility, it is the law enforcement and crime prevention arm of the Army. This "dual mission" generated difficulties in terms of both manpower and equipment, each of which relates to budget dollars. It is logical that the highest priorities in the allocation of Army resources go toward maintaining a high state of combat readiness. In most cases, costs associated with peacetime garrison activities are subordinate to those related to readiness. By the same token, those combat ready assets must be protected in peacetime. Additionally, military property and persons must receive the same police services that any civilian community expects. Therefore, it is imperative that the peacetime law enforcement/crime prevention mission be accomplished in the most efficient manner. Law enforcement equipment is one of the key factors in the successful accomplishment of this peacetime mission of the U.S. Army Military Police Corps.

With the above thoughts in mind, Science Applications, Inc. (SAI) was contracted to perform a study for the Directorate of Combat Development, U.S. Army Military Police School/Center with the primary task:

"To determine, in order of priority, those items of commercially available law enforcement equipment which are necessary to improve the operational effectiveness of safety of the Military Police. Measure of effectiveness of equipment shall be addressed in terms of anticipated reduction in crime rate, increases in MP effectiveness and improvement in MP safety rates. Study products will be used as a basis for determining future MP equipment needs."

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This primary task was further amplified to include the following subtasks:

- Survey military police activities to determine the impact of CNDI-LEE on mission accomplishment and identify CNDI-LEE voids in a CONUS garrison environment.
- Perform comparison studies to determine the degree to which commercially available law enforcement equipment items meet or exceed operational characteristics of equipment currently in use by military police activities.
- Determine if police equipment required for MP garrison operations is sufficiently unique to warrant specialized RDT&E efforts as opposed to procurement of commercially designed items.
- Establish the degree of standardization and cost effectiveness that could be accomplished through the use of Army-wide control procurement for CNDI-LEE items.
- Establish priorities for the introduction of commercially available items into use by military police activities.

The specific areas of military police equipment directed to be investigated (generally, all equipment incident to the accomplishment of the MP garrison mission) are as follows:

- Personal Gear
- Investigative
- Laboratory
- Security
- Traffic Control
- Confinement
- Vehicles



- Communications
- Weapons
- Civil Disturbance
- Station Equipment
- Wildlife Management
(Game Warden)

ASSUMPTIONS

Prior to commencing the study, certain assumptions were given, as follows:

- No significant standardization of commercial law enforcement equipment (LEE) has been accomplished by the Army.
- MP law enforcement equipment procurement has not kept pace with advances in the "state of the art".
- Standardization of LEE would improve the overall quality of MP LEE.
- Procurement of large quantities of standard LEE would result in substantial cost reduction.

In addition to the above, it is quite obvious that standardization of LEE would facilitate accomplishment of the training mission to a measurable degree.

CONSTRAINTS

It became obvious shortly after the commencement of the study effort that the research and travel program would be limited by the time allowed. The magnitude of the problem required selective emphasis in certain areas at the expense of others. The study team, however, is confident that the major areas of controversy received the attention warranted.

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CONDUCT OF THE STUDY

Basically the study was accomplished by a logical progression from gathering requisite data to the production of a useable, meaningful final report.

The steps followed in achieving this final product were:

- Data Collection
- Data Analysis
- Synthesis and Evaluation of Options
- Recommendations

The primary means of gathering data was accomplished by field visits to installations which were selected by the Study Advisory Group. During these visits, user personnel were interviewed by an operations-oriented team member and the team psychologist. Structured as well as unstructured interviews were conducted. By far the majority of these interviews were candid and open. Typical of the sections represented by the persons interviewed were:

- Station Operations
- Patrol Section
- K-9 Section
- Traffic Section
- MPI Section
- AWOL Apprehension

In addition to gaining the users' viewpoint with reference to CNDI-LEE, informal meetings/interviews were held at each installation with the following categories of people:

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- Provost Marshal
- Operations Officer
- Deputy Installation Commander
- Installation DIO
- Safety Director
- Inspector General
- Judge Advocate General
- Procurement Officer
- Supply Officer
- Maintenance Officer

These diversified categories of individuals and activities provided a cross-section and background required to balance the information being obtained from the direct user and middle-management NCO.

Installations Visited

The following installations were visited during the course of the study:

- Ft. Belvoir, Virginia
- Ft. Eustis, Virginia
- Ft. Bragg, North Carolina
- Ft. Carson, Colorado
- Ft. Lewis, Washington
- Ft. Gordon, Georgia
- Ft. McClellan, Alabama
- Tobyhanna Army Depot, Pennsylvania

Included in the schedule of visits to military police activities, as indicated above, civil law enforcement authorities and installations were visited. While these visits were not as detailed or structured, they did provide an essential comparison of functions and equipment. Basically, the findings, conclusions, and recommendations included in this study



were further strengthened and confirmed by the civilian sector.

Civilian police agencies visited were:

- Hampton, VA Police Department
- Sheriff's Department,
Cumberland County, NC
- Fayetteville, NC Police
Department
- Colorado Springs, CO Police
Department
- Stroudsburg, PA Police Department
- Pennsylvania State Police Barracks

(The cooperation and openness afforded the study team by the civilian police authorities were outstanding.)

Civilian police forces, which are directly supported by the local taxpayer (plus some LEAA grants) generally have better facilities and equipment than their military counterparts. Training varies with the size of the civilian force and the dynamism of its leadership. The military force is generally better trained initially, although military police career development training is markedly unavailable, except through civilian agencies. The civilian police force programs replacement of police equipment, i.e. sedans, as a separate entity, and thus timely acquisition of such equipment is the rule. Military police vehicle replacement, on the other hand, is part and parcel of the administrative vehicle fleet, and has little or no priority.

SOME SUBJECTIVE OBSERVATIONS

During certain aspects of the study, the team's interaction with operational military police, mostly first-termers, surfaced certain subjective views not covered elsewhere in the objective analysis included



with this report. These views bear recording as they indicate the state of mind present during the study period.

Generally, the first-termer admits to being attracted to military police duty by (1) the aura of military police, the uniform, white belt and gloves, the patrol car, etc., (2) the redeeming social value of law enforcement work and (3) the possibility of a civilian career in the criminal justice field. The needs of self appeared predominant over those of the community, the Army or the country at-large.

The recruiting information being utilized at Recruiting Stations features an MP poster (MP in helmet liner), a Sep 77 brochure (RRI 77) and a film on MP training with a mix of operational tasks. The information presents a fairly honest view of MP duty (except physical security). Equipment shown is a representative cross-section. If there is an overstatement, it is found in the brochure, to wit, "They've got the training and the equipment, and they know how to use it." Although no one is expected to re-read recruiting data and compare same to reality, the anticipation of a recruit should be, at least partially met by the provision of adequate and modern equipment. The military police, directly out of AIT, do not accept the fact that inadequate equipment, most visible the patrol vehicle, is the standard in garrison. Additionally, the overseas returnee has strong reservations about the condition of all military police equipment and facilities.

Operating military police do interface with civilian law enforcement elements and are exceedingly conscious of the gap between the Army equipment and facilities and those of the civilian community. The perception that there is a lack of responsible budgeting is apparent. Further, there is an awareness as to the frustrations being contained by the military police garrison leadership.

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As a consequence, there is an effect on morale, some apathy by patrols, and in some cases, a decision to forego either a military or a civilian law enforcement career.

Granted, the retainability of personnel is not hostage to equipment alone. However, the availability of proper equipment is related to job satisfaction and whenever an inadequacy develops coupled with tedium of shift work and the stresses and pressures of the police profession, an adverse condition can develop which could make a civilian position, offering better pay and regular hours, more attractive even to highly motivated military police personnel.

Concerns regarding the capability of the all-volunteer force were received. Certain garrison staff officers are of the opinion that the 18-year old volunteer, because of age and lack of maturity, is not ready to assume the tasks as a police person. In particular, the opinion was voiced that the vehicular problem was caused in part by abuse, by lack of training and by lack of supervision.

The study team developed information which indicates that accidents caused by 18-year olds were less frequent than those caused by the oversea returnee, albeit the fact that they are volunteers. The USAMPS and garrison military police organizations both stress driver training to include vehicular maintenance. The adequacy of first-line supervision could not be tested by this study.

As for the premise that an 18-year old cannot discipline others as well as himself, the alternative, that of using senior personnel as police in garrison, although feasible, would require a re-structuring of forces which is not within the province of this study.

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2. SUMMARY OF DATA/INFORMATION COLLECTION

ARMY MANAGEMENT OF CNDI-LEE

Visits by the study team reinforced the validity of the assumptions given at the outset of the study effort. What is occurring in reality is that each installation is forced to evaluate the commercial LEE, justify a local procurement action, and establish appropriate maintainability standards. This is being done with varying degrees of success, consuming an inordinate amount of time, and resulting in a wide variance of commercial LEE, at a significant overall cost to the U.S. Army. What is needed is an Army management structure to provide standardization of CNDI-LEE, accomplished by qualified personnel, with the added benefit of relieving installations of the current burden of attempting to evaluate, justify, and maintain CNDI-LEE. While not required to do so by the contract Statement of Work, the study team has developed an Army CNDI-LEE management structure that is flexible, is structured using existing agencies and activities, and has no evident manpower or dollar impacts other than the financial benefits accruing from this suggested centralized operation.

The present Program Office for Physical Security Equipment (POPSE) is proposed as the overall coordinator and expeditor for CNDI-LEE (less laboratory equipment). This proposed solution has been discussed at length with POPSE, LED and the National Bureau of Standards and is a workable, practical solution without the requirement to establish a completely new agency. An obvious advantage accrues, that of a monitor with good visibility and influence. (See Appendix B)

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VEHICLES

The Patrol Car (Sedan)

Throughout the course of this study and, in particular, at the eight sites visited, the single most discussed and condemned item of law enforcement equipment is the sedan — by MP commanders, their staff, and by users. With the negligible procurement of sedans in 1979 and 1980, the situation can only worsen.

Instances were found of as much as 80% of the garrison patrol cars on deadline at the time of the visit; of patrol cars being obtained from the installation property disposal officer; of one-third of the garrison MP fleet with over 200,000 miles per car; and of a consistent low priority of maintenance at the various TMPs.

In a few cases, gaps were filled with tactical vehicles. This has proven to be an unsatisfactory solution to the patrol car problem

The current centralized procurement of sedans on any Army-wide basis, destined for general administrative use and for use as MP vehicles is unresponsive to the needs of the garrison law enforcement unit. The matter is compounded by the price ceiling (presently \$3400) placed on the military by Congress — generally precluding the purchase of sedans with police package. (The standard production model of current US sedans will not accommodate the wear, tear, and hard usage associated with MP service.) With the price ceiling dictating compact cars at best, the need arises for police vans (or at least additional vehicles to post guards, return apprehended violators, etc. This further complicates manpower and maintenance problems.

Acquiring cost data incident to the operation of an MP patrol fleet proved to be almost impossible. The MP vehicles are now buried in the overall sedan fleet in post TMPs and are not identified statistically. At one major post, the TMP estimated a cost of ten cents



a mile to maintain and fuel a sedan. The costs associated with the use of tactical vehicles for military police work becomes absorbed in the accounting procedures for TOE units and are not clearly identified as resulting from the MP mission.

In an effort to solve the problem of the MP patrol car, a rather intensive investigation into the mechanics of leasing was made.

The study group contacted Ted Britt Leasing, Inc., of Fairfax, VA, for some specific costs and conditions. Figures were obtained for two models of a standard police car in the mid-size range.

The cost for the leased car and a maintenance contract (covering 60,000 miles) amounts to \$2772 \pm annually, which compares most favorably with the cost of maintaining the present less-than-satisfactory sedan currently in the MP patrol car fleet. Additionally, some savings in both money and manpower could be achieved by lowering the density in TMPs.

AR 58-1, Joint Procedures for Management of Administrative Use Motor Vehicles, dated 12 May 1976, contains the authority for leasing sedans. Although it is doubtful that the intent of this regulation was to authorize the leasing of a complete patrol car fleet, it does not preclude it.

Van, Accident/Incident

Several commercial models of a van, designed to accommodate all of the equipment and materials needed to investigate a crime at the scene are available. These vans are compartmentalized and have space reserved for a comfortable working area inside and under cover. One such van was examined in detail at the civilian police headquarters in Stroudsburg, PA (a Dodge van with the interior customized by a commercial police supply company). At one post, action was underway to fabricate a similar van from a hollow shell.



Four-Wheel Drive Vehicles

The 4-wheel drive vehicle is being used by most posts, particularly in range areas. There is an undisputed need for this type vehicle, and research has not uncovered a satisfactory military type vehicle to fill this need.

A bonus effect could be gained by the authorization of an efficient, rugged 4-wheel drive vehicle, that being its utility and versatility on those posts subject to heavy snows — which even affected the Washington, DC area in February 1979. Frequently these are the only vehicles able to operate under extremely adverse weather conditions. (See Appendix C)

COMMUNICATIONS

At the top or near top of anyone's priority list of commercial law enforcement equipment is adequate communications equipment. Basically this equipment falls into three categories: station communications, vehicular (mobile) and hand-held (portable).

Every installation visited had on-hand commercial communications equipment. The age of this equipment ranged up to 12 years of age.

Maintenance was contracted to representatives of the manufacturer, in some cases direct from user to contractor and in some cases through the Post Signal (a route that needlessly delayed repairs).

Of the installations visited, the capabilities of the communications equipment varied widely, in particular the station communication equipment.

Those posts with up-to-date modern equipment possessed just about all of the desired capabilities. Those with old, or first generation, models were very conscious of the shortcomings of the equipment and were



engaged in the laborious and time-consuming process of attempting to justify replacement and obtain the necessary funding or were due to receive new equipment within the near term.

When equipped with modern equipment, the advantages and improved efficiency and effectiveness throughout the garrison law enforcement operations were obvious to even the casual observer.

Presenting a formidable barrier to all posts acquiring up-to-date equipment is the lack of standardization and central procurement.

Another item that is a prerequisite to efficient and effective utilization of good communications equipment is an adequate system design — and the expertise in the Post Signal should be drawn upon to accomplish this prior to the acquisition of equipment. (See Appendix D)

PERSONAL GEAR

Individual Gear

Without exception, personnel of all ranks rate the issue gear (belt, holster, and holder for night stick) as unsatisfactory. The time spent in upkeep of the issue gear is excessive; it presents a poor appearance; and it does not adequately support the items that must be carried. Solutions to this problem are apparently as varied as there are installations, Provost Marshals, and Commanding Generals.

Solutions encountered during the installation visits ranged from one post that only permits issue gear to be worn, through the gamut of installation procurement of commercial gear for the garrison police force (some of this equipment was satisfactory and some was not), of individuals purchasing specific items on the commercial market and wearing a mixture of issue and commercial gear, to individual purchase of a complete set of commercial gear at a personal expenditure of up to one



hundred dollars.

There is an obvious need, and an urgent one, for the standardization and central procurement of individual gear for the garrison military police.

Uniforms

There is a great diversity in the type uniform being worn by military police on garrison duty: fatigues, Army tan, and Army green. The uniform is the prerogative of the installation commander and no standardization seems appropriate. Unfortunately, there is a philosophy prevalent at some installations that military police should not look like "cops", therefore the uniform worn by the tactical troops in training and maintenance is the uniform worn by the MPs. This does little for the morale and pride of the individual MP (one post visited prohibits the wearing of the MP badge).

Overriding any dissatisfaction with the basic uniform is the overwhelming demand for a serviceable, comfortable jacket that presents a smart appearance. The issue field jacket and the green blouse fall far short of meeting this demand — in the law enforcement role. The field jacket is durable, functional, and reasonably comfortable when worn in the circumstances for which it was designed. It does not, however, present a smart military appearance. It was designed to be worn in the field under tactical conditions and not for patrol duty. To the general public, the gate guard (on installations where they are still used) and the military police patrol are what usually present the initial image of that post.

Considerable work has already been done toward the eventual procurement of a short serviceable jacket for MP garrison duty. In the opinion of the USAMPS, the USAF jacket (USAF specification MIL-J-83472) with minor modifications meets the requirement for a functional



duty jacket for the MPs. While the acquisition of the modified AF jacket may be a fait d'accompli, a case can certainly be made for the flight jacket, sateen finish. The present sateen flight jacket has been declared obsolete and is being replaced by the Nomex Flight Jacket, thus reducing cost as the item is available through the supply system. The sateen flight jacket has been effectively used as the standard MP jacket at Ft. Campbell and at various installations in Korea, to name a few.

In addition to the jacket, discussed above, other items of uniform receiving considerable attention were headgear and raingear.

All forms of headgear were encountered during the visits to installations: white hats, baseball caps, helmet liners, and on one post, the vehicular helmet. It has been reported that one other installation uses the vehicular helmet, and another post is actively pursuing the procurement of these helmets. At the post where helmets were examined by the study group, it was found that they are excellent from an appearance standpoint, comfortable, and with good user acceptance. They are functional and presented a definite margin of safety over other types of headgear.

There is an unquestioned need for raingear that is highly visible (international orange) with provisions for wearing the badge and permitting easy access to the individual's weapon and cuffs. Several varieties of commercial origin were encountered during the visits to installations.

Individual Weapons

The controversy concerning the most appropriate sidearm for the military police, in the law enforcement role, has continued for years. Opinions vary from the presently authorized cal .45 M1911A1 through various models of cal .38 revolvers, to several different calibers of magnums.

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During the study, the team found no justification for changing the currently issued sidearms (.45 for male MPs and .38 for female MPs and MPI). (See Appendix E)

MILITARY POLICE AVIATION

Only one post visited had organic, dedicated military police aviation. The reported success of this element of the garrison law enforcement effort would certainly indicate a further look into the feasibility of expanding to other installations.

Statistics from the civilian community certainly support the reported impact aviation has made on crime prevention, crime rate and apprehensions at the one post visited where it was organic to the military police.

Aviation is a high-cost area; however, conversion kits (lights, hailer, etc.) for the already on-hand OH-58 are available on the commercial market. (See Appendix F)

LABORATORY

The CID Laboratory at Ft. Gordon was visited and few problems of a CNDI-LEE nature were encountered.

There is an on-going equipment up-date program in effect and the laboratory is keeping abreast of the state-of-the-art in their equipment procurement.

The inefficient fragmenting of the laboratory effort throughout ten separate buildings and the lack of expert monitorship at CID HQ are two matters that warrant further attention. (See Appendix G)

A stylized logo consisting of the letters 'SAI' in a bold, italicized, sans-serif font. The letters are connected, with the 'S' and 'A' forming a continuous shape, and the 'I' is slightly separated. The logo is positioned in the bottom right corner of the page, above the page number.

MISCELLANEOUS

Several of the areas that were to be investigated presented such a low profile and density or were already under the aegis of a specific agency that little was gained by discussions regarding them. These areas are briefly summarized in this section.

Security Equipment

Since no significant problem areas concerning security equipment surfaced during the initial field visits to installations, it was determined that a visit to the Army Program Office for Physical Security Equipment (POPSE) at Ft. Belvoir, VA would be useful. The POPSE has as its mission to serve as the central Army focal point for discharge of physical security equipment responsibilities assigned to the Army, and as such, is responsible for coordinating and monitoring the management of the development, acquisition, and integrated logistic support of assigned physical security equipment systems. Since the Army already has established management emphasis, which is intense and centralized, it would be inappropriate, as a part of this study, to duplicate the efforts already being accomplished by POPSE.

Confinement

One confinement facility was visited and the staff expressed satisfaction with the equipment authorized and issued. The addition of closed circuit TV to assist in surveillance of those cells housing prisoners requiring 24-hour observation was suggested as an improvement, but was not considered a necessity.

A stylized logo consisting of the letters 'S', 'A', and 'I' in a bold, italicized, and interconnected font. The 'S' and 'A' are joined together, and the 'I' is positioned to the right, also connected. The logo is located in the bottom right corner of the page.

Civil Disturbance

Little was developed in this area and no equipment complaints were voiced. If, however, the counter-terrorism role is to be considered in this general area, there is a need for a standard, centrally procured sniper rifle with scope.

Wildlife Management

Mixed comments were heard regarding issue traps and cages. In most cases, the ingenuity of the individual game warden overcame any shortcomings. Unresolved, however, was the matter of 4-wheel drive vehicles — which are covered elsewhere in the study.

SUMMARY

The research supported and strengthened the case for standardization and centralized procurement of commercial law enforcement equipment.

CNDI-LEE is central to the successful accomplishment of the garrison law enforcement mission and many of the items have a definite and direct carry-over to the combat role of the military police.

The present system of procurement of CNDI-LEE suffered by installations throughout CONUS is unnecessarily wasteful of manpower and funds.

The solution seems almost obvious: a Project Officer to centrally manage the program, continuous input of requirements from USAMPS, and close liaison with the National Bureau of Standards and the Civil Law Enforcement community.

However — priorities must change, due recognition must be given the garrison law enforcement mission, which includes that of assuring the safety and well-being of military personnel and equipment so that it is available when the first battle commences.

A stylized logo consisting of the letters 'SAI' in a bold, italicized, sans-serif font. The letters are interconnected, with the 'S' and 'A' sharing a common vertical stroke on the left, and the 'I' being a separate vertical stroke on the right. The logo is positioned in the bottom right corner of the page, partially overlapping the page number.

3. FINDINGS AND CONCLUSIONS

- In order to initiate and continue a program of standardization and procurement of commercial law enforcement equipment and to maintain that program current with the state-of-the-art, a Project Office/Program Manager is required.
- The separate post procurement effort to obtain CNDI-LEE represents an inordinate amount of time and effort, usually on the part of one officer in the office of each Provost Marshal, and is a duplication of effort on the part of each officer.
- Success in the post procurement of CNDI-LEE has been largely dependent on the merits of the justification presented by each Provost Marshal and the availability of funds at that particular post at that particular time.
- During the course of the study, no indications or justifications were uncovered for an RDT&E effort on the part of the military, in the area of CNDI-LEE.
- Standards for law enforcement equipment, as well as product lists for many items have been set, tested, and published by the Law Enforcement Standards Laboratory of the National Bureau of Standards (in effect solving the major part of the Army R&D requirements in this area).
- Sound business logic dictates that mass purchases are more economical than purchase of individual items; centralized procurement accomplishes mass purchases — the current individual and post purchase system represents an enormous waste of time and/or money.



- No two installations are precisely the same (mission, assets, terrain, etc.), therefore some flexibility or latitude must be reserved for the individual Provost Marshal — even with centralized procurement.

- Up-to-date "state-of-the-art" CNDI-LEE makes a positive, and almost visible, impact on the morale, bearing and pride of the garrison MP; conversely, the absence of this equipment has an exceedingly detrimental effect.

- Coincident with the procurement of CNDI-LEE, provisions must be made for contract maintenance of the equipment.

- Vehicles:

- The commercially procured sedans on hand for use as patrol cars are, except for rare instances, unsatisfactory.
- Leasing of commercial vehicles appears, at this juncture, to be a cost-effective solution to the sedan problem.
- The use of tactical vehicles as regular substitutes for patrol sedans increases costs, degrades unit readiness, increases accidents and resultant injuries.
- The mid-size or standard size sedans are required for garrison duty. Compact cars are unsatisfactory from a utility standpoint, especially after mounting interior police equipment.
- On a majority of the installations visited, the maintenance performed by post transportation motor pools was unresponsive to the needs of the garrison law enforcement unit.
- A van, accident/incident, is generally accepted as being a definite asset in the accomplishment of the police mission in garrison. (Value diminishing as the size of the installation diminishes.)



- A commercial version of a 4-wheel drive vehicle for the military police is a necessity on most installations, both for use on the range and during hazardous weather conditions on the post itself.

- Laboratory

- The equipment upgrade program, instituted by the CID program, concerning laboratories appears quite adequate, and is accommodating the laboratories' requirements.
- There is an absence of central control or monitorship at CID HQ of a knowledgeable laboratory individual which, if filled, would facilitate continuing surveillance and assistance in laboratory programs (operations and equipment).

- Personal Gear

- The issue personal gear (belt, holster, holder for night stick, etc.) is unsatisfactory; requires excessive amount of upkeep, presents poor appearance, and does not adequately support the items that must be carried.
- As a result, there is a fragmented effort by various posts to acquire substitute gear from the commercial market and in some cases individuals are spending up to \$100 of their personal funds to obtain commercial gear.
- No legitimate or compelling justification was developed to warrant a change in the currently authorized sidearm (.45 for male MPs, .38 for female MPs and MPis).

- Police Aviation

- Where police aviation is in use, military and civilian, there has been a measurable and favorable impact on police effectiveness, crime reduction, crime prevention, and apprehensions.
- Adequate helicopter "police packages" are available on the commercial market with which to modify helicopters currently in the Army inventory (lights, speakers, etc.).



- Communication Equipment

- An adequate, current state-of-the-art station console improves the overall effectiveness of the police effort.
- Commercial models of station consoles, mobile car units, and portable units are currently in use at all installations:
 - this equipment varies in age from new to 12 years
 - the equipment is not standardized and has been acquired by separate and expensive post procurement efforts.



4. RECOMMENDATIONS

As a result of the research accomplished throughout the course of this study effort, an analysis of the results of that research and consideration of the findings and resultant conclusions, it is recommended that:

1. A central office for CNDI-LEE be established:
 - The responsibility for evaluating candidate items of CNDI-LEE and for developing necessary requirements documents to remain with USAMPS.
 - The responsibility for centralized procurement, issue, and logistical aspects of CNDI-LEE, except for laboratory equipment, be vested in the already-constituted structure of the Project Officer for Physical Security Equipment (HQ, US Army Materiel Development and Readiness Command (DARCOM)).
 - The specific duties and responsibilities of the Project Officer, with respect to CNDI-LEE be jointly established by Combat Development Directorate, USAMPS/Law Enforcement Division, ODCSPER/Project Officer for Physical Security Equipment (POPSE).
2. The proposition of fleet rentals for garrison law enforcement patrol vehicles be actively pursued.
 - The major automobile manufacturers be approached first for rental contracts to help assure adequate maintenance contracts.
3. The items of CNDI-LEE, in the priority listed below, be standardized, programmed for procurement, and be introduced into use by military police activities:
 - Vehicles: patrol car with police package, lights, etc.
 - Communication Equipment: portable and mobile transceivers; station console/recorder/teletype



- Individual Gear: belts, holsters, etc.; juty jacket; headgear
- Station Alcohol Testing Apparatus
- Radars: moving/stationary/hand-held
- Investigative Equipment: camera (35mm)/kits

4. The CID Command actively pursue:

- The acquisition of CLIS for the Laboratory
- The consolidation of currently fragmented laboratory elements into a single building
- The establishment of a position on the staff to monitor and supervise the operation and materiel acquisition of the laboratories.

5. The following listed items be further studied as to basis of issue, and their impact on personnel, efficiency, crime rate, and funding; and incorporate those items deemed worthy, by the results of these studies:

- Police Helicopters
- Station Word Processing Centers
- Integrated computers for station communications consoles.



APPENDICES



APPENDIX A
STUDY DIRECTIVE

(extract from Contract DAAK21-79-C-0021)

Awarded SAI, 19 January 1979



CONTINUATION SHEET

PIIN: DAAK21 - 72 - C - 0021	PART II -- SECTION F DESCRIPTION/SPECIFICATIONS	PAGE: F.1
<p>F.1 The contractor shall provide all necessary personnel, facilities, and materials to perform a study entitled: "Commercial Nondevelopmental Items of Law Enforcement Equipment (CNDI-LEE)".</p> <p>F.2 <u>ASSUMPTIONS</u></p> <p>F.2.1 No significant standardization of commercial law enforcement equipment (LEE) has been accomplished by the Army.</p> <p>F.2.2 MP law enforcement equipment procurement has not kept pace with advances in the "state of the art".</p> <p>F.2.3 Standardization of LEE would improve the overall quality of MP LEE.</p> <p>F.2.4 Procurement of large quantities of standard LEE would result in substantial cost reduction.</p> <p>F.2.5 LIMITATIONS:</p> <p>F.2.5.1 Baseline effectiveness of military police activities shall be measured with the equipment available during the current time frame.</p> <p>F.2.5.2 Specific areas of military police equipment need to be investigated:</p> <ul style="list-style-type: none"> F.2.5.2.1 Personal gear F.2.5.2.2 Investigative F.2.5.2.3 Laboratory F.2.5.2.4 Security F.2.5.2.5 Traffic Control F.2.5.2.6 Confinement F.2.5.2.7 Vehicles F.2.5.2.8 Communication F.2.5.2.9 Weapons F.2.5.2.10 Civil Disturbance F.2.5.2.12 Station equipment F.2.5.2.13 Wildlife management (game warden) <p>F.2.5.3 Equipment recommended must meet operational criteria in climatic conditions 1 thru 6 (wet, warm weather down to intermediate cold - Para 2-7 thru 2-12, AR 70-38, dated 5 May 1969).</p>		

CONTINUATION SHEET

P.L.N.
DAAK21-79-C-0021PART II -- SECTION F
DESCRIPTION/SPECIFICATIONSPAGE:
F.2

F.2.5.4 Equipment must be applicable to both male and female military police personnel.

F.3 SCOPE OF CONTRACTOR EFFORT:

F.3.1 Task:

To determine, in order of priority, those items of commercially available law enforcement equipment which are necessary to improve the operational effectiveness or safety of the military police. Measure of effectiveness of equipment shall be addressed in terms of anticipated reduction in crime rate, increases in MP effectiveness and improvement in MP safety rates. Study products will be used as the basis for determining future MP equipment needs.

F.3.2 SUBTASKS:

F.3.2.1 Survey military police activities to determine the impact of CNDI-LEE on mission accomplishment and identify CNDI-LEE voids in a CONUS garrison environment;

F.3.2.2 Perform comparison studies to determine the degree to which commercially available law enforcement equipment items meet or exceed operational characteristics of equipment currently in use by military police activities;

F.3.2.3 Determine if police equipment required for MP garrison operations is sufficiently unique to warrant specialized RDT&E efforts as opposed to procurement of commercially designed items;

F.3.2.4 Establish the degree of standardization and cost effectiveness that could be accomplished through the use of Army-wide control procurement for CNDI-LEE items;

F.3.2.5 Establish priorities for the introduction of commercially available items into use by military police activities;

F.3.2.6 When alternative systems to satisfy the requirement are identified, a SAG approved methodology for identifying a preferred candidate will be developed.

F.4 END PRODUCTS REQUIRED SHALL CONSIST OF:

F.4.1 Attendance and briefing at all scheduled SAG meetings.

F.4.2 Interim reports required:

F.4.2.1 Monthly progress report,

F.4.2.2 Draft report,

F.4.2.3 Final draft report,

CONTINUATION SHEET

PIIR:
DAAK21 - 79 - C - 002.1

PART II -- SECTION F
DESCRIPTION/SPECIFICATIONS

PAGE:
F.3

F.4.3 Final Report

F.5 INFORMATION TO BE PROVIDED BY THE GOVERNMENT:

F.5.1 No approved scenario is available for the garrison law enforcement mission. Contractor shall only consider CONUS Military Police activities/functions when conducting this study.

F.5.2 Location of MP activities to be surveyed. It is anticipated that eight (8) trips each for three (3) contractor's representatives to various Army Installations in the Eastern States will be required. Further information on exact locations will be available after award of contract.

F.5.3 Applicable Tables of Organization and Equipment (TOE), Tables of Distribution and Allowances (TDA), and Common Tables of Allowances (CTA).

F.5.4 Applicable Technical Manuals (TM's), US Department of Justice, Law Enforcement Assistance Administration (LEAA) technical reports and National Institute of Law Enforcement and Criminal Justice (NILECJ) standards.

F.5.5 Military Police doctrine and functions.

CONTINUATION SHEET

PHIN: DAAK21-79-C-0021	PART II -- SECTION H DELIVERIES OR PERFORMANCE	PAGE: H.1
<p>H.1 - The contract shall be completed on or before seven (7) months after date of award.</p> <p>H.2.- Data shall be delivered in accordance with the DD Form 1423, Attachment 1 to Section M.</p> <p>H.3 - All deliveries shall be FOB Destination to:</p> <p style="margin-left: 100px;">U.S. Army Military Police School/Training Center Directorate of Combat Developments (Bldg 3191) Test and Evaluation Coordination Office ATTN: CPT S. J. Gruneich (ATZN-CDT) Fort McClellan, Alabama 36205</p> <p>H.4 <u>PERIOD OF PERFORMANCE:</u></p> <p>H.4.1 Estimated Starting Date: Upon award of contract</p> <p>H.4.2 Estimated Completion Date: 7 Months after date of award.</p> <p>H.4.3 Critical Milestone Events</p> <p>H.4.3.1 Study Advisory Group (SAG): Upon award of contract</p> <p>H.4.3.2 Draft Coordination Report: 2 Months after date of award</p> <p>H.4.3.3 SAG: 3 Months after date of award.</p> <p>H.4.3.4 Draft Final Report: 4 Months after date of award*</p> <p>H.4.3.5 Final SAG: 5 months after date of award.**</p> <p>H.4.3.6 Final Report: 7 months after date of award.</p> <p><u>Notes</u></p> <p>* Changed to 5 months</p> <p>** Changed to 5.5 months</p>		

APPENDIX B
ARMY MANAGEMENT OF CNDI-LEE



APPENDIX B

ARMY MANAGEMENT OF CNDI-LEE

At the outset of this study effort the following assumptions were provided by the study sponsor:

- "• No significant standardization of commercial law enforcement equipment (LEE) has been accomplished by the Army.
- MP law enforcement equipment has not kept pace with advances in the 'state of the art'.
- Standardization of LEE would improve the overall quality of MP LEE.
- Procurement of large quantities of standard LEE would result in substantial cost reduction."

Visits by the study team reinforced the validity of the assumptions given at the outset of the study effort. What is occurring in reality is that each installation is forced to evaluate the commercial LEE, justify a local procurement action, and establish appropriate maintainability standards. This is being done with varying degrees of success, consuming an inordinate amount of time, and resulting in a wide variance of commercial LEE, at a significant overall cost to the U.S. Army. What is needed is an Army management structure to provide standardization of CNDI-LEE, accomplished by qualified personnel, with the added benefit of relieving installations of the current burden of attempting to evaluate, justify, procure, and maintain CNDI-LEE. While not required to do so by the contract statement of work, the study team has developed an Army CNDI-LEE management structure that is flexible, is structured using existing agencies and activities, and has no evident



manpower or dollar impacts other than the financial benefits accruing from the suggested centralized operations.

PROJECT OFFICE - LEE

It is proposed that the Project Officer for Physical Security Equipment (POPSE) be given the additional responsibility for law enforcement equipment and that AR 190-13 and DARCOM Regulation 1-1 be changed to reflect this addition.

DARCOM-R 1-1, dated 8 April 1977, titled PROJECT OFFICER FOR PHYSICAL SECURITY EQUIPMENT (POPSE) designated a U.S. Army Materiel Development and Readiness Command (DARCOM) Project Officer (PO) for Physical Security Equipment (PSE) to act as the central Army focal point for PSE. It further establishes and prescribes the mission of the PO for PSE, provides for management emphasis to centralize and intensify the Army management of PSE, and prescribes the assistance to be provided the PO for PSE in the performance of his assigned mission.

It became apparent from the outset that a central office and spokesman was a necessity if LEE was to receive the attention it obviously requires. Close liaison presently exists between the USAMPs - POPSE - NBS which will facilitate the management of LEE. Since LEE and PSE are so closely associated, the additional responsibility becomes merely an extension of the present duties of POPSE. In addition, the POPSE manager position is designated as a Military Police Corps O-6 position, and individuals with extensive law enforcement background would be candidates for assignment.

DARCOM-R 1-1 specifies in the responsibilities of POPSE - "Responsibility includes concept, research, requirements, development, tests/evaluation, procurement, logistics support, installation, operation, and maintenance criteria". This responsibility encompasses all areas of interest with respect to LEE.



The Project Office for Physical Security Equipment, the Law Enforcement Standards Laboratory of the National Bureau of Standards, and the Law Enforcement Division HQDA have all agreed in principle to this concept.

Figure 1 is a diagram of the coordination and action routes of the proposed Program Office.

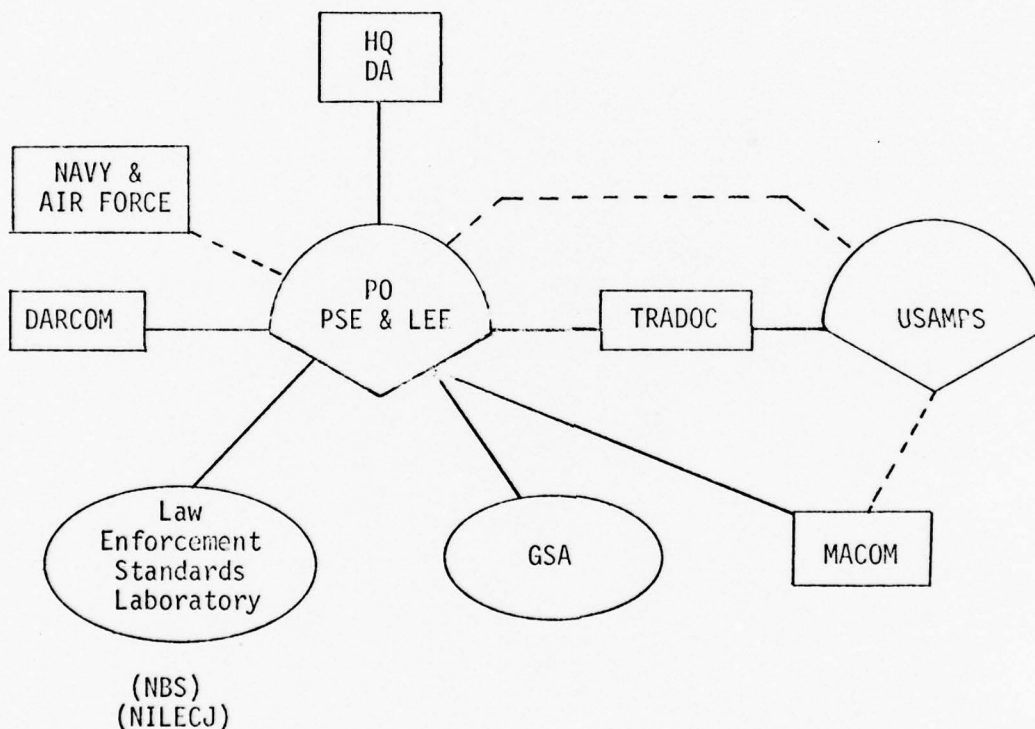


Figure 1: Coordination and Action Diagram

SAI

BACKGROUND OF THE FUNCTIONING OF POPSE-LEE

Requirements

- a. TRADOC (USAMPS) is responsible for determining the Army's future requirements for CNDI-LEE.
- b. Annually USAMPS will survey the MACOMS to receive input of future LEE needs. USAMPS in coordination with PO, PSE will determine the feasibility of undertaking research and development for recommended equipment or procurement of commercial items.
- c. USAMPS will prepare necessary requirements documents for items of law enforcement equipment.
- d. PO, PSE will establish a prioritized listing for the equipment.

Coordination

- a. Program coordination at HQ DA includes DCSPER, DCSOPS, DCSLOG, DCSRDA, OCE, and ACA.
- b. The PO, PSE will establish coordination with such other DoD and non-DoD governmental agencies (LESL) to insure total coordination of the acquisition effort.

THE NON-DoD ELEMENTS OF THE COORDINATION AND ACTION DIAGRAM

Law Enforcement Standards Laboratory

Following a Congressional mandate to develop new and improved techniques, systems, and equipment to strengthen law enforcement and criminal justice, the National Institute of Law Enforcement and Criminal Justice (NILECJ) has established the Law Enforcement Standards Laboratory (LESL) at the National Bureau of Standards. LESL's function is to conduct



research that will assist law enforcement and criminal justice agencies in the selection and procurement of quality equipment.

In response to priorities established by NILECJ, LESL is (1) subjecting existing equipment to laboratory testing and evaluation and (2) conducting research leading to the development of several series of documents, including national voluntary equipment standards, user guidelines, state-of-the-art surveys and other reports.

NILECJ equipment standards are technical documents consisting of performance and other requirements together with a description of test methods. Equipment which can meet these requirements is of superior quality and is suited to the needs of law enforcement agencies. Purchasers can use the test methods described in this standard to determine firsthand whether a particular equipment item meets the requirements of the standard, or they may have the tests conducted on their behalf by a qualified testing laboratory. Law enforcement personnel may also reference this standard in purchase documents and require that any equipment offered for purchase meet its requirements and that this compliance be either guaranteed by the vendor or attested to by an independent testing laboratory.

Equipment Technology Center

The Equipment Technology Center, operated by the IACP with National Institute of Law Enforcement and Criminal Justice (NILECJ) support, was established to test items of equipment commonly used by law enforcement and criminal justice agencies and to make the results of those tests available to criminal justice officials and to manufacturers.

The testing program is part of the National Institute's equipment standards program which sets scientifically sound performance standards for major items of law enforcement gear and then supervises independent tests of commercially available equipment to see if it meets those standards.



Literally billions of dollars are spent on equipment for police and other parts of the criminal justice system. Understandably, decisions about which products to buy frequently turn on questions of economy. Although costs are an important consideration, they should not outweigh such essential factors as the quality and performance of a particular piece of equipment.

The Equipment Technology Center is designed to serve as a consumer advocate and guide for the law enforcement and criminal justice community.



APPENDIX C

VEHICLES



APPENDIX C

VEHICLES

The Patrol Car (Sedan)

Throughout the course of this study and, in particular, at the eight sites visited, the single most discussed and condemned item of Law Enforcement Equipment is the sedan — by MP commanders, their staff, and by users. With the negligible procurement of sedans in 1979 and 1980, the situation can only worsen.

Instances were found of as much as 80% of the garrison patrol cars on deadline at the time of the visit; of patrol cars being obtained from the installation property disposal officer; of one-third of the garrison MP fleet with over 200,000 miles per car; and of a consistent low priority of maintenance at the various TMPs.

In a few cases, gaps were filled with tactical vehicles. This has proven to be an unsatisfactory solution to the patrol car problem for several reasons:

- Universal disapproval by safety officers
- Accident rate at one major post:
 - Sedans: approximately 1/100,000 miles
 - Tactical vehicles: approximately 2/100,000 miles
- Expensive in tire replacement (due to hard surfaced roads)
- Degrades combat readiness of tactical units
- Built-in communications problem
- Inherently dangerous characteristics amplified during inclement weather.

The current centralized procurement of sedans on any Army-wide basis, destined for general administrative use and for use as MP vehicles



is unresponsive to the needs of the garrison law enforcement unit. The matter is compounded by the price ceiling (presently \$3400) placed on the military by Congress — generally precluding the purchase of sedans with police package. (The standard production model of current US sedans will not accommodate the wear, tear, and hard usage associated with MP service.) With the price ceiling dictating compact cars at best, the need arises for police vans, or at least additional vehicles to post guards, return apprehended violators, etc. This further complicates manpower and maintenance problems.

Acquiring cost data incident to the operation of an MP patrol fleet proved to be almost impossible. The MP vehicles are now buried in the overall sedan fleet in post TMPs and are not identified statistically. At one major post, the TMP estimated a cost of ten cents a mile to maintain and fuel a sedan. The costs associated with the use of tactical vehicles for military police work becomes absorbed in the accounting procedures for TOE units and are not clearly identified as resulting from the MP mission.

Considerable work has been accomplished by the National Bureau of Standards in the field of police patrol cars. The results of this work have been published in NBS Special Publication 480-15, titled The Police Patrol Car: Economic Efficiency in Acquisition, Operation, and Disposition, dated April 1978. While the effort was directed towards the problem of the civilian police department, and much is not pertinent to the military, considerable information is contained in this publication concerning maintenance costs, leasing vs. purchase, and in-house maintenance vs. contract maintenance, all of which is germane to this study (Annex I).

In an effort to solve the problem of the MP patrol car, a rather intensive investigation into the mechanics of leasing was made.



Several in-house studies have been made in the Army (FORSCOM and units in USAREUR) detailing the PROs and CONS of leasing, but no visible action resulted. In the current era of austerity, with no apparent diminishing of mission, the subject of leasing MP fleets bears another and closer look.

The study group contacted Ted Britt Leasing, Inc., of Fairfax, VA, for some specific costs and conditions. Figures were obtained for two models of a standard police car in the mid-size range. (See Annex II) The cost for the leased car and a maintenance contract (covering 60,000 miles) amounts to \$2772 \pm annually, which compares most favorably with the cost of maintaining the present less-than-satisfactory sedan currently in the MP patrol car fleet. Additionally, some savings in both money and manpower could be achieved by lowering the density in TMPs.

There are obviously some other benefits accruing from a leasing program:

- A car designed for police work
- Freedom from a restrictive cost ceiling
- New equipment with no dependence on TMP for support
- A lift to the morale and pride of the users
- Improved image for garrison law enforcement units

AR 58-1, Joint Procedures for Management of Administrative Use Motor Vehicles, dated 12 May 1976, contains the authority for leasing sedans. Although it is doubtful that the intent of this regulation was to authorize the leasing of a complete patrol car fleet, it does not preclude it.

This regulation and the suggestion to consider leasing was brought to the attention of the major commands in a Department of the Army letter from DAPE-HRE, Subject: Military Police Sedans, dated 6 March 1979 (Annex III).



In addition to patrol cars, several other types of vehicles surfaced during the course of the study:

- Wrecker, Commercial Design

One of the major time-consuming roles played by the garrison law enforcement unit is that of recovering abandoned vehicles. Great dependence is placed on the wrecker(s) of the post transportation motor pool to assist the military police in accomplishing this task. Complaints were voiced by two Provost Marshals that the TMP was unresponsive, in that frequently the wrecker(s) were not available. On the other hand, most PMs had no complaints. One recommendation received was that two wreckers of commercial design be authorized to each PM to facilitate the recovery mission. Considering the prohibitive cost of these wreckers, this recommendation could not be justified by the study group when the value received and the impact on other equipment programs were considered.

However, one post (Ft. Carson) has recently purchased two dollies to be used in recovery operations. These items were acquired at a cost of approximately \$800 each, and after a reasonable period of time Ft. Carson should be queried as to the success and/or deficiencies of this equipment. If this equipment proves satisfactory, it should be considered for authorization to each garrison law enforcement unit.

- Van, Accident/Incident

Several commercial models of a van, designed to accommodate all of the equipment and materials needed to investigate a crime at the scene are available. These vans are compartmentalized and have space reserved for a comfortable working area inside and under cover. One such van was examined in detail at the civilian police headquarters in Stroudsburg, PA (a Dodge van with the interior customized by a commercial police supply company). At one post, action was underway to fabricate a similar van from a hollow shell.

A stylized logo consisting of the letters 'SAI' in a bold, italicized, sans-serif font. The letters are interconnected, with the 'S' and 'A' sharing a common vertical stroke, and the 'I' being a single vertical stroke to the right.

This type vehicle (the commercial version) would appear to have considerable utility and would be of great assistance in handling the investigative mission. Further, it would provide a covered area, protected from the elements, for interviewing witnesses, on-site, at traffic accidents.

From a cost effective viewpoint, it was concluded that the authorization for this type vehicle should be based on the size of the installation — size being a combination of land area and population. It does not appear that investment in this type van would be cost effective on a small post. The breakpoint, however, between a large and small post was not determined.

- Motorcycle/Motorscooter

None of the installations visited operated motorcycles, although there was active interest expressed by at least one Provost Marshal in their use. Several of the civilian police agencies used motorcycles and were quite satisfied with the results. Fayetteville, NC Police Department, in particular, was extremely high in its praise of the versatility and economy of operation inherent in the motorcycle. Aware of the common belief that motorcycles/motorcyclists are accident-prone, this police department has an extensive screening and training program and has achieved an enviable safety record. The cycle used in Fayetteville is the Honda Model 750.

- Four-Wheel Drive Vehicles

The 4-wheel drive vehicle is being used by most posts, particularly in range areas. There is an undisputed need for this type vehicle, and research has not uncovered a satisfactory military type vehicle to fill this need.



The C5J was generally unsatisfactory in the views of those Provost Marshals who were authorized those vehicles. Commercial types such as Ford Bronco or Dodge Power Wagon were most often suggested as the solution to the 4-wheel drive problem.

A bonus effect could be gained by the authorization of an efficient, rugged 4-wheel drive vehicle, that being its utility and versatility on those posts subject to heavy snows — which even affected the Washington, DC area in February 1979. Frequently these are the only vehicles able to operate under extremely adverse weather conditions.



ANNEX I

ADVANTAGES AND DISADVANTAGES OF LEASING

The following is an excerpt from the NBS
Special Publication No. 48-15, entitled
"The Police Patrol Car: Economic Efficiency
in Acquisition, Operation, and Disposition",
dated April 1978.



Advantages and Disadvantages of Leasing

Some police administrators who were interviewed asserted that leasing must always be more expensive than a well-run, in-house operation, since the lessor's profit is added to the basic cost of operating the fleet. This point of view, however, ignores the possibilities of economies of scale and economies of specialization. A leasing company may supply vehicles to a number of departments, thereby operating a combined group of vehicles very much larger than the fleets of any one client. Through mass purchasing, a large leasing company may be able to overcome one of the disadvantages often cited, i.e., that a private firm cannot buy at the favorable prices extended to state and local government units. Economies of scale may also exist in car disposal. A large leasing company may have access to many and different types of resale outlets and a better view of the resale market, permitting it to obtain higher resale values than some police departments could obtain. Thus, it is quite possible for the depreciation cost included in the monthly lease payment to compare favorably with that which the department would incur through ownership. Similarly, economies of scale might be realized in more efficient utilization of maintenance and repair equipment and specialized personnel, and in use of automated data processing equipment and mass paper handling methods, thereby reducing overhead cost.

It may also be asserted that acquisition of vehicles by lease must be more costly— from the standpoint of the drain on the police department's budget—than department ownership, because the borrowing cost of private firms is normally greater than that of governmental agencies, which may float tax-exempt securities. Apart, however, from consideration of the true social cost of public borrowing, there are limits to the amount of funds which government agencies may raise in this way. In addition, restrictions are sometimes placed on the financing of short-life capital assets by issuing securities. Also, as with a private firm, leasing may improve the working capital position of a public agency, thereby freeing funds to be used for purchasing other resources or undertaking other activities which are expected to yield positive net benefits to society.

Another argument sometimes raised against leasing by government agencies is the absence of special tax advantages which may accrue to private firms which lease. Since government agencies are tax-exempt, it is true that the same tax considerations which apply to private fleet decisions do not apply to police fleets. Furthermore, it may be argued that government agencies which lease forego the advantage of their tax-exempt status, which allows them to purchase at a lower price than leasing companies. However, as we have seen, the government agency may be able to preserve this advantage if it can pass the tax-exemption on to the lessor.³⁶

In addition to cost considerations, there are other reasons why police departments might find leasing advantageous. One advantage of leasing was cited by several police departments who leased: the regular streams of contracted payments facilitated budgeting. Less resistance may be encountered from the appropriations body to police department requests for monthly lease payments than for funds to purchase new and/or additional cars. One police fleet manager explained that prior to leasing the department faced a constant, recurrent struggle to obtain funds for purchasing replacement vehicles. The fleet was generally old, and failing cars posed constant problems. After acceptance of a leasing arrangement—with its 1-to-2-year replacement clause—little difficulty was experienced in obtaining annual approval of the monthly rental payments. The average age of the fleet is now much lower and car condition much improved.



Another police department reported an inability to obtain funding for the capital outlay needed to expand its fleet to meet growing requirements for transportation. However, it could get sufficient funding to meet the monthly rental charge for additional vehicles on a leased basis and reported improved vehicle availability under leasing. This same department cited the advantage of greater ease in adjusting the number of vehicles to actual need under leasing.³⁹ Clauses in the lease contract calling for standby vehicles immediately deliverable from the lessor can achieve this flexibility. A lessor who serves several departments may be able to maintain an adequate backup inventory at a lower cost than each individual department, since the likelihood that all clients will need emergency replacements at the same time is rather small.

Two chief motivating forces were found for the apparent preference of police departments for the maintenance lease: (1) Maintenance leasing offers to small and moderate-size departments a possible reduction in maintenance service costs achievable through economies of scale of the lessor; and (2) maintenance leasing may offer escape from an existing poor maintenance arrangement.

The short-term maintenance lease provides a more flexible, less binding arrangement than is possible through the establishment of an internal maintenance facility. Some claim that this rationale for leasing is a "cop-out"—an admission of failure by the police department to operate its fleet efficiently, and, doubtlessly, it is an indication that the existing system is not functioning satisfactorily. However, the roots of the problem may not lie directly within the police department or within its power of control. If this is the situation, leasing—if leasing is more cost-effective than the existing system—is preferable to continuing a less efficient operation merely for the sake of having a police- or municipal-owned and serviced fleet.

A prevalent objection to leasing is that the police department loses control of its fleet and can no longer assure proper car selection, maintenance, and availability. It is sometimes asserted that a lessor will not provide suitable vehicles, that his maintenance facilities will be inadequate for the unique and specialized police vehicle, that the availability of police transportation (and protection) will be subject to the whims of the lessor, and that police cars damaged in riots or other disturbances after 5 p.m. will become unavailable until the following day. However, actual experience with leasing by police departments suggests that most of these problems are exaggerated. The lease arrangements presented earlier illustrate some of the ways departments avoid, or at least greatly reduce, these potential problems. A considerable degree of control and flexibility with a leased fleet does appear to be possible.

Other objections to leasing and reasons for department ownership which were given by police fleet managers included the following: (1) Tradition: "this is the way it has always been done"; (2) an ample annual capital equipment budget; (3) the cost and trouble of making a change in the system; (4) a small expected cost difference between the alternatives; (5) existing reciprocal community arrangements; and (6) pride of ownership. The first five of these rationales for ownership in themselves make little sense in terms of economic efficiency. Even if a department's budget does allow purchase, this by itself does not warrant purchase. Pride of ownership is a psychological motive whose value is difficult to assess; but this also appears to be a weak argument for ownership.



In summary, this investigation found no impediments to police fleet leasing which by nature appear insurmountable. It found several motives for police leasing aside from possible cost advantage. It appears that leasing could, under certain circumstances, offer cost advantages not only to small police departments, but to departments of any size.

³⁶ Wayne K. Armstrong, Chief of Police, Rapid City, S. Dakota, "Should Your Department Lease Its Police Cars?" *FBI Law Enforcement Bulletin*, November 1964, p. 12.

³⁷ *Ibid.*, p. 13.

A stylized logo consisting of the letters 'S', 'A', and 'I' in a bold, italicized, sans-serif font. The letters are interconnected, with the 'S' and 'A' forming a continuous shape on the left and the 'I' on the right. The logo is positioned in the bottom right corner of the page, partially overlapping the horizontal line that separates the main text from the footer.

ANNEX II

CONTRACT FORMS FOR LEASING VEHICLES

Note: Communication equipment is available at the same agency; on a lease basis, it would increase the monthly rate approximately \$45.

Contract maintenance is available for up to 60,000 miles at \$25/car/month.

The total monthly rate is:

Car with police package \$204 - \$210

Commo \$45

Maintenance \$25

TOTAL ... \$274 - \$280

per car/per month
(3 years)

These dollar amounts were valid at the time of the initial inquiry, 22 March 1979, and are subject to change with the new model year.





LEASE ORDER FORM



TO: TED BRITT LEASING, INC.
(Lessor)
10601 LEE HIGHWAY
(Address)
FAIRFAX, VIRGINIA Zip 22030
(City - State)

DATE 3/22/79
Net ☒ Finance
Lease Term 36 Mos.

Gentlemen:

Please procure and deliver to us a motor vehicle as herein described in accordance with conditions set forth below:

Car <input checked="" type="checkbox"/>	Year <u>1979</u>	Model - Series - Type	Unit Serial No.	Color	Cyls.	Term	GVW Rating
Truck <input type="checkbox"/>	Make <u>Ford</u>	<u>Fairmont 4 door</u>	<u>order</u>		<u>8</u>	<u>36 Mos.</u>	<u>n/a</u> Lbs.
Net Lease Allowable Number of Free Miles <u>75,000</u>		Cents Per Mile Charge Excess Miles <u>\$.05</u>	Original Value <u>\$6,059.00</u> Monthly Depreciation <u>\$ 154.42</u>		Use <u>BUSINESS</u>		
EXTRA EQUIPMENT:							
<input checked="" type="checkbox"/> Power Steering		<input type="checkbox"/> Whitewall Tires		<input checked="" type="checkbox"/> Automatic Transmission			
<input checked="" type="checkbox"/> Power Brakes		<input type="checkbox"/> Vinyl Roof		<input checked="" type="checkbox"/> Tinted Glass		<input checked="" type="checkbox"/> Air Conditioner	
<input type="checkbox"/> Power Windows		<input type="checkbox"/> Luggage Rack		<input type="checkbox"/> Body Side Moulding		<input type="checkbox"/> Bumper Guards	
<u>police package</u>		<input type="checkbox"/> Remote Control Mirror		<u>vinyl trim, cig. lghtr., trunk light</u>			
FIRST MONTH CHARGES							Total Delivery Payment
Depreciation	Rental Fee	Insurance	Comp. F. & T.	Miscellaneous	License	Tax	
			Coll/Upset				
			P.L.&P.D.				
<u>\$ 154.42</u>	<u>\$ 55.00</u>	<u>-0-</u>	Total \$ <u>-0-</u>	<u>\$-0-</u>	<u>\$-0-</u>	<u>\$ -0-</u>	<u>\$ 209.42</u>
MONTHLY RENTAL							Total Monthly Rental
Depreciation	Rental Fee	Insurance	Comp. F.&T.	Miscellaneous	License	Tax	
			Coll/Upset				
			P.L.&P.D.				
<u>\$ 154.42</u>	<u>\$ 55.00</u>	<u>-0-</u>	Total \$ <u>-0-</u>	<u>\$-0-</u>	<u>\$-0-</u>	<u>\$ -0-</u>	<u>\$ 209.42</u>
Total Lease Term: Depreciation \$ <u>5,559.12</u>				All Other \$ <u>1,980.00</u>		Total Rentals	
Maximum Lessee Depreciation Liability at End of Lease \$ <u>n/a</u>				Security Deposit \$ <u>waived</u>		<u>\$ 7,539.12</u>	

Note: Security Deposit is refundable as described in Par. 2 a. of Standard Leasing Agreement. All rentals are payable in advance. If insurance is not included in the above Monthly Rental, the Lessee agrees to provide the insurance specified in the Standard Leasing Agreement through the Agency/Company listed below:

VEHICLE TO BE DELIVERED TO: _____

ADDRESS: _____

This order is for the motor vehicle described above, which will be delivered in accordance with the provisions of your Standard Leasing Agreement (Form FD24L or 25L); a copy of which I have received and which I agree to execute upon delivery of the subject vehicle, the rental fees for which are set forth above.

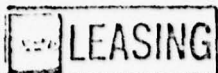
Lessee agrees that upon delivery of said motor vehicle to Lessee it shall be held subject to all provisions of said Standard Leasing Agreement and the assignment of any payments thereunder.

X _____
(Lessee's Signature)

(Address)

(City) (State) (Phone)

Ted Britt Leasing Inc.
(Lessor)
Fairfax, Virginia
By Bill Aylmer (City - State)



LEASE ORDER FORM



TO: TED BRITT LEASING, INC.
(Lessor)
10601 LEE HIGHWAY
(Address)
FAIRFAX, VIRGINIA Zip 22030
(City - State)

DATE 3/22/79
Net ☒ Finance
Lease Term 36 Mos.

Gentlemen:

Please procure and deliver to us a motor vehicle as herein described in accordance with conditions set forth below:

Car <input type="checkbox"/>	Year 1979	Model - Series - Type	Unit Serial No.	Color	Cyls.	Term	GVW Rating
Truck <input checked="" type="checkbox"/>	Make Ford	Fairmont 4 door			8	36 Mos.	n/a Lbs.
Net Lease Allowable		Cents Per Mile	Original Value \$5,347.00		Use		
Number of Free Miles n/a		Charge Excess Miles n/a	Monthly Depreciation \$ 148.53		BUSINESS		
EXTRA EQUIPMENT:							
<input checked="" type="checkbox"/> Power Brakes		<input checked="" type="checkbox"/> Power Steering	<input checked="" type="checkbox"/> Whitewall Tires		<input checked="" type="checkbox"/> Automatic Transmission		
<input type="checkbox"/> Power Windows		<input type="checkbox"/> Vinyl Roof	<input checked="" type="checkbox"/> Tinted Glass		<input type="checkbox"/> Air Conditioner		
<input type="checkbox"/> Remote Control Mirror		<input type="checkbox"/> Luggage Rack	<input type="checkbox"/> Body Side Moulding		<input type="checkbox"/> Bumper Guards		
<input type="checkbox"/> Police package		vinl trim, cig. lghtr., trunk light					
FIRST MONTH CHARGES							Total Delivery Payment
Depreciation	Rental Fee	Insurance	Comp. F. & T.	Miscellaneous	License	Tax	
			Coll/Upset				
			P.L. & P.D.				
\$ 148.53	\$ 55.00	-0-	Total \$	\$ -0-	\$ -0-	\$ -0-	\$ 203.53
MONTHLY RENTAL							Total Monthly Rental
Depreciation	Rental Fee	Insurance	Comp. F. & T.	Miscellaneous	License	Tax	
			Coll/Upset				
			P.L. & P.D.				
\$ 148.53	\$ 55.00	-0-	Total \$	\$ -0-	\$ -0-	\$ -0-	\$ 203.53
Total Lease Term: Depreciation \$ 5,347.08				All Other \$ 1,980.05			Total Rentals
Maximum Lessee Depreciation Liability at End of Lease \$				Security Deposit \$ waived			\$ 7,327.08

Note: Security Deposit is refundable as described in Par. 2 a. of Standard Leasing Agreement. All rentals are payable in advance. If insurance is not included in the above Monthly Rental, the Lessee agrees to provide the insurance specified in the Standard Leasing Agreement through the Agency/Company listed below:

VEHICLE TO BE DELIVERED TO: _____

ADDRESS: _____

This order is for the motor vehicle described above, which will be delivered in accordance with the provisions of your Standard Leasing Agreement (Form FD24L or 25L,) a copy of which I have received and which I agree to execute upon delivery of the subject vehicle, the rental fees for which are set forth above.

Lessee agrees that upon delivery of said motor vehicle to Lessee it shall be held subject to all provisions of said Standard Leasing Agreement and the assignment of any payments thereunder.

X

(Lessee's Signature)
(Address)
(City) (State) (Phone)

Ted Britt Leasing Inc.
(Lessor)
Fairfax, Virginia
(City - State)
By *Pickup*

FAIRMONT POLICE PACKAGES

Police packages and options are offered for law enforcement agencies on the 4-door Fairmont Sedan.

Some of the major features included in this package are power steering, power front disc/rear drum brakes and automatic transmission with First Gear Lock-Out. Both standard-duty organic and heavy-duty (semi-metallic) police brake linings are available on police cars to meet the varying requirements of different police fleets for fade resistance and other performance requirements. The standard-duty lining provides adequate fade resistance and lining life for most fleet applications. The heavy-duty linings (standard with Fairmont police packages) meet the LAPD certification requirements by providing superior fade resistance at the expense of increased noise and reduced lining life in most cases.

Due to the severity of police use, some occasional squeal and reduced lining life compared to non-commercial use are to be expected from both of the lining materials offered. Consequently, squeal and lining life complaints will not be honored as warranty adjustments on either lining material.

3.3 LITRE (200) POLICE PACKAGE

The 3.3 litre (200 CID) Police Package provides economical yet responsive operation. Major features include a seven bearing counter balanced crankshaft, hydraulic valve lifters, and DuraSpark electronic ignition.

5.0 LITRE (302) POLICE PACKAGE*

The Fairmont 5.0 litre (302 CID) Police Package features free-turning valves, precision shell-molded crankshaft, plated copper-lead alloy main bearings and DuraSpark electronic ignition.

* VV with California emission system

INCLUDED IN THE 3.3 LITRE (200) AND 5.0 LITRE (302) POLICE PACKAGES:

- **ALTERNATOR:** 100-ampere single two-point drive
- **BATTERY:** 77-ampere-hour, heavy-duty with heat shield
- **BRAKES:** Power front disc/rear drum; includes semi-metallic linings and 10" rear drums - designed to pass California maximum duty requirements
- **COOLING PACKAGE, MAXIMUM**
- **HEAVY-DUTY UNITIZED BODY STRUCTURE:** Upgraded over base model
- **MAP LIGHT**
- **MIRROR, INSIDE DAY/NIGHT**
- **SEATS, HEAVY-DUTY FRONT AND REAR:** Cloth and vinyl trim
- **SPEEDOMETER:** 0-120 MPH calibrated in 2 MPH increments
- **STEERING, POWER:** With oil cooler
- **SUSPENSION, HEAVY-DUTY:** Includes unique front and rear stabilizer bars, heavy-duty: spindles, front and rear springs, bushings, front struts, rear shock absorbers and jounce bumpers; also, higher gauged shock towers - designed to pass maximum duty requirements
- **TIRES:** DR70 x 14 BSW "Police Radials"

- **TRANSMISSION, AUTOMATIC:** With first gear "lock-out." The first gear "lock-out" feature is designed to eliminate the possibility of manually holding the transmission in first gear, as is possible with the regular automatic transmission. The transmission may be held manually in second gear when placed in the "Drive" position, the transmission has fully automatic, three-speed operation
- **TRANSMISSION OIL COOLER**
- **WHEELS:** Heavy-duty 14 x 5.5-inch safety rims

Fairmont Police Car Options

REGULAR PRODUCTION OPTIONS

In addition to the many standard features included in the Fairmont police package, a number of Regular Production Options (equipment advertised nationally and available from production stock) are available so that individual units might be tailored to meet the requirements of your customer.

Appearance Protection Options

- **Bumper Guards, Front and Rear**

Audio Equipment Options

- **Radio -- AM**
- **Radio -- AM/FM Monaural**
- **Radio -- AM/FM Stereo**
- **Deluxe Bumper Group**
- **Lower Bodyside Protection**
- **Vinyl Insert Bodyside Moldings**
- **Rocker Panel Moldings**
- **Deluxe Wheel Covers**
- **All Vinyl Trim**
- **Appearance Protection Group (includes door-edge guards, front and rear carpet mats and license plate frames (rear only when front bracket not ordered))**

Comfort/Convenience Options

- **SelectAir Air Conditioner with Manual Temperature Controls**
- **Defogger -- Rear Window**
- **Defroster, Electric Rear Window**
- **Glass -- Tinted Complete**
- **Finger-Tip Speed Control**
- **Tilt Steering Wheel**
- **Electric Clock**
- **Mirrors -- Dual Bright Outside (Left-hand remote-control)**
- **Light Group -- includes luggage compartment light, ashtray and glove box lights, passenger door and rear door courtesy light switches and engine compartment light**

Power Assist Options

- **Power Door Locks**
- **Power Side Windows**
- **Power Bench Seat (4-Way)**

FAIRMONT POLICE PACKAGES

LIMITED PRODUCTION OPTIONS

The following Limited Production Options (equipment generally used only by fleet and commercial accounts) are available to police fleets:

Appearance/Protection Options

- Heavy-Duty Black Rubber Floor Mats (replaces standard carpeting)

Comfort/Convenience Options

- Cigar Lighter
- Glass — Tinted Windshield
- Luggage Compartment Light
- Mirror — Outside Left-Hand Remote-Control
- Mirror — Inside Day/Night

Heavy-Duty and Special Equipment Options

- Automatic Transmission with First Gear "Lock-Out" Delete
- Heater, Engine Block Immersion
- 195/70 HR14 BSW "Police Radials"

DEALER-INSTALLED ACCESSORIES

In addition to the factory-installed options available to police fleets, your dealership offers a wide range of dealer-installed accessories. Some of the accessories available are:

- Compass
- Fire Extinguishers
- Spot Light
- Wheel Splash Guards

FAIRMONT POLICE PACKAGE POWER TEAM DATA		
Engine.....	3.3L (200 CID) 1V 6	5.0L (302 CID) 2V V-8*
Displacement (cu. in.)	200	302
Alternator.....	90-Ampere	90-Ampere
Battery	77-Amp.-Hr.	77-Amp.-Hr.
Transmission.....	Automatic — First Gear Lock Out	Automatic — First Gear Lock Out
Axle Ratio.....	2.73(a)	2.26(a)

(a) 3.08 with California and high altitude emission system
* VV with California emission system

FAIRMONT — GENERAL SPECIFICATIONS

POWER TEAM COMBINATIONS

49 STATES

ENGINES	TRANSMISSIONS			REAR AXLE RATIOS		
	4-Speed Manual	4-Speed Manual Overdrive	SelectShift Automatic	4-Speed Manual	4-Speed Manual Overdrive	SelectShift Automatic
SEDANS 2.3 Litre 4 (STD)	STD	NA	OPT	3.08	—	3.08
3.3 Litre (200 CID) Six (OPT)	NA	STD	OPT	—	3.08	2.73
5.0 Litre (302 CID) V-8 (OPT)	NA	STD	OPT	—	3.08	2.26
STATION WAGON 2.3 Litre 4 (STD)	STD	NA	NA	3.08	—	—
3.3 Litre (200 CID) Six (OPT)	NA	STD	OPT	—	3.08	2.73
5.0 Litre (302 CID) V-8 (OPT)	NA	STD	OPT	—	3.08	2.26

CALIFORNIA

SEDANS 2.3 Litre 4 (STD)	STD	NA	OPT	3.08	—	3.08
3.3 Litre (200 CID) Six (OPT)	NA	NA	OPT	—	—	3.08
5.0 Litre (302 CID) V-8 (OPT)	NA	NA	OPT	—	—	2.73
STATION WAGON 2.3 Litre 4 (STD)	STD	NA	NA	3.08	—	—
3.3 Litre (200 CID) Six (OPT)	NA	NA	OPT	—	—	3.08
5.0 Litre (302 CID) V-8 (OPT)	NA	NA	OPT	—	—	2.73

HIGH ALTITUDE

SEDANS 3.3 Litre Six (OPT)	NA	NA	OPT	—	—	3.08
5.0 Litre (302 CID) V-8 (OPT)	NA	NA	OPT	—	—	3.08
STATION WAGON 5.0 Litre (302 CID) V-8 (OPT)	NA	NA	OPT	—	—	3.08

STANDARD TIRE AVAILABILITY*

MODEL	2.3 Litre 4-Cyl. Engine	3.3 Litre (200 CID) 6-Cyl. Engine	5.0 Litre (302) 8-Cyl. Engine
2-Door Sedan	B78X14 BSW	B78X14 BSW	CR78X14 BSW
4-Door Sedan	B78X14 BSW	B78X14 BSW	CR78X14 BSW
4-Door Station Wagon	—	CR78X14 BSW	CR78X14 BSW

* Steel-belted radial ply tires standard on all models equipped with automatic transmission

OPTIONAL TIRE AVAILABILITY*

STANDARD	B78X14 WSW	BR78X14 BSW	BR78X14 WSW	C78X14 BSW	C78X14 WSW	CR78X14 BSW	CR78X14 WSW	DR78X14 BSW	DR78X14 WSW	DR78X14 RWL
B78X14 BSW	X	X	X	X	X	X	X	X	X	X
C78X14 BSW	—	—	—	—	X	X	X	X	X	X
CR78X14 BSW	—	—	—	—	—	—	X	X	X	X
DR78X14 BSW	—	—	—	—	—	—	—	—	X	X

* Steel-belted radial ply tires standard on all models equipped with automatic transmission

FAIRMONT — GENERAL SPECIFICATIONS

BODY DIMENSIONS				
All dimensions in inches unless otherwise stated.	2-Door Sedan	4-Door Sedan	2-Door Futura	Station Wagon
GENERAL				
Wheelbase	105.5	105.5	105.5	105.5
Tread — Front	56.6	56.6	56.6	56.6
— Rear	57.0	57.0	57.0	57.0
Height — Overall	53.5	53.5	52.2	54.8
Length — Overall	193.8	193.8	195.8	193.8
Width — Overall	71.0	71.0	71.0	71.0
FRONT SEAT ROOM				
Head Room, Effective	38.3	38.3	37.1	39.0
Shoulder Room	56.7	56.7	56.7	56.7
Hip Room	47.5	47.5	47.5	47.5
Maximum Leg Room to Accelerator	41.8	41.8	41.8	41.8
REAR SEAT ROOM				
Head Room, Effective	37.5	37.5	36.1	39.0
Shoulder Room	55.7	56.7	57.3	56.7
Hip Room	53.7	53.7	55.1	48.7
Leg Room, Effective	35.4	35.4	32.7	35.4
LUGGAGE COMPARTMENT				
Usable Luggage Capacity (Cu. Ft.)	16.8	16.8	16.1	—
Liftover Height	30.0	30.0	30.0	—
CARGO COMPARTMENT				
Cargo Volume Index	—	—	—	79.1
Load Floor Length (Closed Tailgate) 2nd Seat Down	—	—	—	81.8
Maximum Rear Opening Width at Belt	—	—	—	52.6
Rear Opening Height	—	—	—	28.8
Minimum Floor Width (Between wheelhousings)	—	—	—	36.6
FUEL TANK				
Capacity (Gal.)	16.0	16.0	16.0	16.0
GLASS AREAS (Sq. In.)				
Windshield Glass Exposed Surface Area	1330.0	1330.0	1390.5	1330.0
Side Glass Exposed Surface Area	1837.0	1850.0	1204.5	1917.2
Backlite Glass Exposed Surface Area	1091.6	1091.6	1130.9	922.8
Total Glass Exposed Surface Area	4288.6	4271.6	3725.8	4170.0
CURB WEIGHT*	2715	2668	2670	2800

* Weight of vehicle with oil, water and a full tank of gas — 2.3L engine and 4-speed manual transmission

WHEEL SPECIFICATIONS

Type	Stamped Steel, Ventilated Disc with Safety-Type Rims
Number of Studs	4
Diameter and Rim Size - Sedan	14" x 5"
- Wagon	14" x 5.5"
Optional Cast Aluminum or Styled Steel Rim Size	14" x 5.5"
Bolt Ctr. (All)	4.5"

STEERING SPECIFICATIONS

Gear Type	Rack-and-Pinion
Overall Steering Ratio (Manual)	24.9:1
Overall Steering Ratio (Power)	20.1:1
Turning Diameter (Curb-to-Curb)	39.5 ft.
Steering Wheel Diameter	15.0 in.
Steering Wheel Turns (Lock-to-Lock) (manual)	4.1
(power)	3.1

BRAKE SPECIFICATIONS

FRONT DISC/REAR DRUM	2- And 4-Door Models	Station Wagon
Brake Rotor Diameter (Disc)	9.98"	9.98"
Outer Working Surface Diameter	10.06"	10.06"
Inner Working Surface Diameter	6.16"	6.16"
Front Swept Area*	176.6 sq. in.	176.6 sq. in.
Drum Diameter/Width	9" x 1.75"	10" x 1.75"
Rear Swept Area*	98.9 sq. in.	98.9 sq. in.
Total Front and Rear Swept Area*	275.5 sq. in.	301.6 sq. in.
Lining Material	Molded Asbestos	
Lining Attachment	Riveted	
Parking Brake — Type	Mechanical Activation of Rear Brake	

* Swept Area is the effective brake working surface

ANNEX III

LETTER, DAPE-HRE, SUBJECT: MILITARY POLICE SEDANS
DATED 6 MARCH 1979





DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL
WASHINGTON, D.C. 20310

6 MAR 1979

DAPE-HRE

SUBJECT: Military Police Sedans

SEE DISTRIBUTION

1. References:

- a. AR 700-88, Commercial Design Vehicles, 22 Jun 72.
- b. AR 58-1, Joint Procedures for Management of Administrative Use Motor Vehicles, 12 May 67.

2. The purpose of this letter is to respond to a number of queries concerning military police sedan procurement and leasing authority. Procurement of military police sedans is governed by procedures outlined in reference 1a above and leasing authority for sedans is identified in reference 1b above.

3. Priorities for replacement of military police sedans are established by the local commander through participation in the annual vehicle review outlined in reference 1a. The actual number of sedans procured in any given fiscal year depends on the appropriation provided by Congress. For example, in FY 78, Congress appropriated funds to purchase less than 50 percent of the sedan requirement identified by MACOMS in the annual vehicle review. MACOMS were allocated a pro-rata share of their sedan requirements and when received, distributed them based on command priorities established. It is incumbent on the provost marshal/security officer to effectively articulate vehicle requirements to the commander to ensure that the military police receive priority for replacement of sedans.

4. This office has been informed that Congress has not appropriated funds for sedan procurement in FY 79 and indications are that funds may not be provided in FY 80. This situation may further exacerbate the military police sedan problem for some installation provost marshals. Installation provost marshals may wish to consider leasing of vehicles as an alternative to resolve their unfilled vehicle authorizations. The provisions of paragraph 11-2e, reference 1b, apply and consolidation of requests at the MACOM level is recommended. Requests for authority to lease should be addressed through logistic channels to this headquarters, ATTN: DALO-TSM.

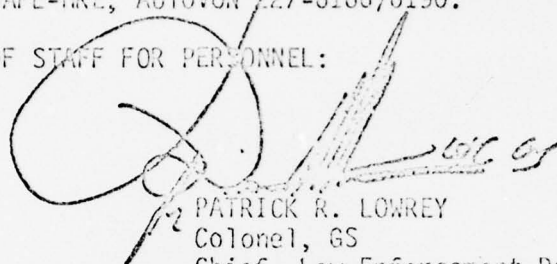
DAPE-HRE

SUBJECT: Military Police Sedans

5. Procurement of military police sedans may be facilitated by the increased price limitation authorized by Congress that can be expended for sedans. The present statutory limitation is \$3,400 for sedans (previously \$2,700). A total of 80 Volare' sedans with military police packages have been procured in FY 78 for CONUS installations.

6. Further information or assistance concerning the above can be obtained from Major Anderson, DAPE-HRE, AUTOVON 227-6166/6190.

FOR THE DEPUTY CHIEF OF STAFF FOR PERSONNEL:



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APPENDIX D
COMMUNICATIONS



APPENDIX D

COMMUNICATIONS

At the top or near top of anyone's priority list of commercial law enforcement equipment required to accomplish the mission of garrison military police units, is adequate communications equipment. Basically this communications equipment falls into three categories: station communications, vehicular, and hand-held or portable. Each of these categories will be addressed separately.

As to the current status, every installation visited had on-hand, station commo equipment, vehicular radios and portable hand-held radios, all of commercial design and manufacture and all as a result of local procurement. The age of this equipment ranged up to 12 years and was of several varieties; predominantly Motorola, GE, Federal, and RCA (and a few of the oldest items of other manufacture). Maintenance was contracted to representatives of the manufacturer, in some cases direct from user to contractor and in a few cases through the Post Signal (a route that needlessly delayed repairs). Response to maintenance requests was generally good, with Motorola achieving an overall excellent reputation for responsiveness.

Station Communications*

All of the installations visited, as well as the civilian police agencies, had station communications in the military police stations. These consoles (a few extremely antiquated) for the dispatcher, Desk Sergeant, clerk, etc., were of commercial design and the military units had obtained them by way of local procurement.

* Tobyhanna Army Depot will not be considered in this discussion because of the completely different circumstances found at the Depot, as opposed to the troop populated installations, i.e., fixed posts and 3 authorized vehicles.



In general, the requirements that should be satisfied by the station base console are as follows:

- Net with vehicular and hand-held radios
- Net with local civilian police agency(s) and other emergency forces
- Selective signalling/paging of the mobile and hand-held transceivers, either individually or collectively
- Possess patching capability
- Accommodate taping of all inbound/outbound communications
- Module construction to facilitate replacement/repair/update
- Evidence of human engineering in layout of displays
- Accept remote units.

Of the installations visited, the capabilities of the station consoles varied widely. Those with modern or new equipment possessed just about all of the desired features -- any shortfall usually traceable directly to funds. Those with old or first generation models were very conscious of the shortcomings of the equipment and were in the laborious process of attempting to justify and obtain funds for replacement or were due to receive the new equipment within the near term.

When equipped with modern consoles, the advantages and improved efficiency and effectiveness in station operations were obvious to any observer with even a modicum of knowledge of police operations.

The team made several observations relative to the operational aspects of the station consoles which are worthy of consideration in any future acquisitions:



- Avoid white countertops on the console assemblies. The white surface coupled with overhead lights induce headaches and eye strain after approximately five hours. The light green countertop has proven most effective and comfortable.
- Consider carefully the positioning of the dispatcher and the Desk Sergeant with relation to one another. It has been noted in civilian police stations, as well as MP stations, that in spite of internal commo hook-up, in the event of an emergency or crisis the Desk Sergeant will leave his post so that he can personally oversee the activities at the dispatcher's console.
- Do not use the rear of assembled console cabinets as a wall. Irrespective of the claims of the manufacturer, the cabinets will suffer damage. Also, the removal of a back panel, which would be readily accessible, exposes the wiring system to damage, intentional or accidental.

Mobile and Hand-Held Equipment

After establishing the need for a garrison MP station base radio and console, the study group recognized the need for mobile radios for patrol vehicles and individual hand-held radios for the individual police person.

The vehicular radios must be mounted in such a manner as to facilitate easy access to operators and passengers and optimally can become a portable radio when one element of the mobile radio is detached. The range and maintenance interval should be considered heavily over initial acquisition costs.

Portable radios are needed by each military police on duty, with an adequate reserve amount, to meet contingency situations.

Radios (both mobile and portable) must be compatible to provide communication between all patrol elements on a continuous basis. The hand-held radio must be lightweight, easy to use, require little maintenance, and have long-life batteries. Portable radios are rated highly



by military police as necessary for safety and police effectiveness.

Limitations to mobile and portable systems currently in use must be overcome, where practicable. These are inadequate range, due to line-of-sight problems, lack of output, misplacement of antennae, failure to use repeaters and neglect of radio telecommunication surveys for identification of dead areas. Design voids include both the base station and portable/mobile units.

System Design

Alternate frequencies must exist. Scanners in use within the civilian community, in particular by the media, but also available to law breakers, restrict the use of communications networks by the police, other emergency forces, and command and control elements. In cases of hostage negotiations, acts of terrorism or of civil disturbance, the military police would be hampered without a means of unmonitored or discrete communication. Alternate, though limited, communications or frequencies must be considered during contingency planning actions at installation level.

In light of the problems of dead areas, voids, and the need for discrete communication channels, it becomes most adviseable to use the signal expertise available on most installations to design the overall communications system. Figure 1 is a schematic of a system design constructed by signal personnel at one installation to satisfy all of the Provost Marshal's stated requirements.



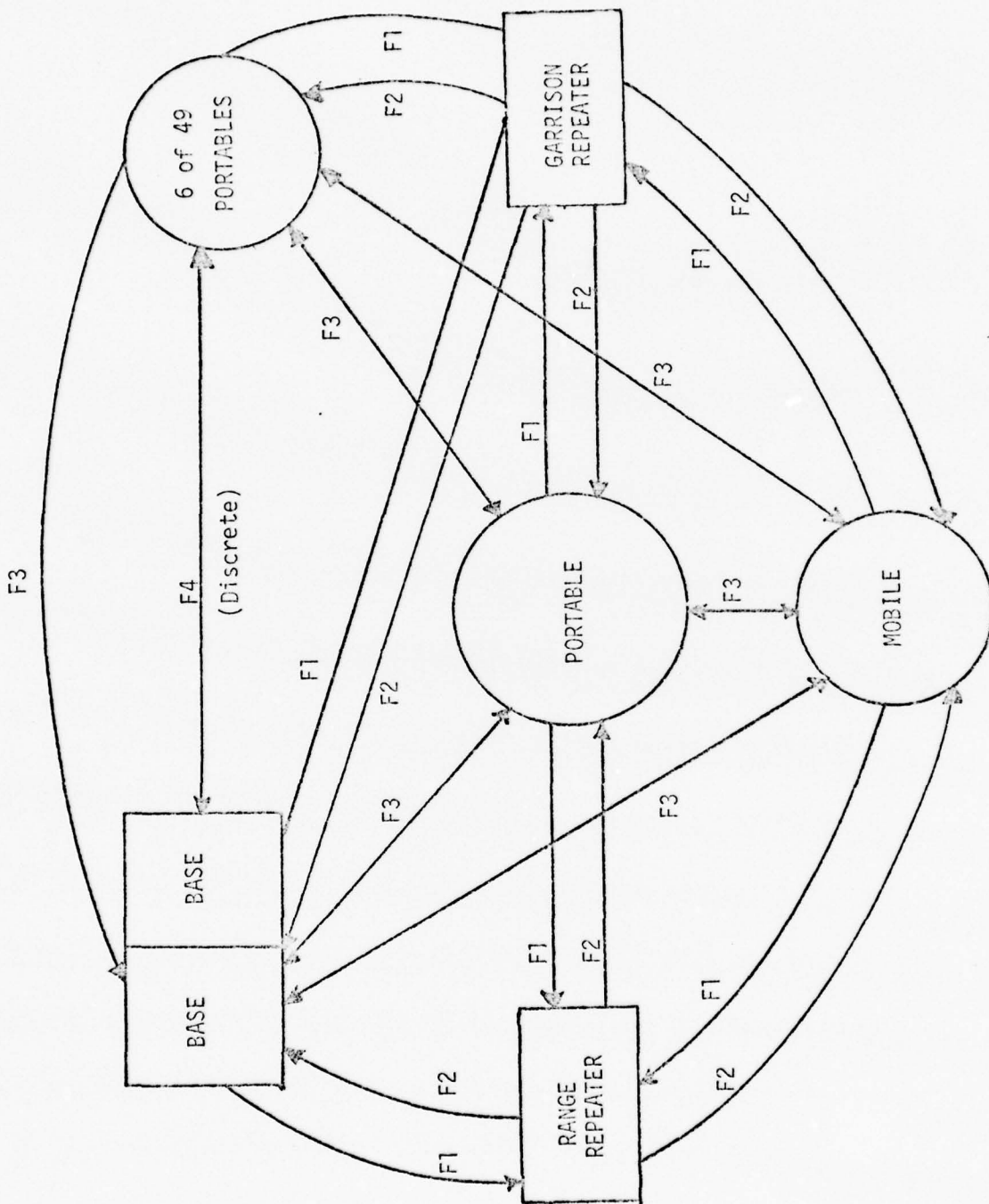


Figure 1: MP Commo System Design

APPENDIX E

PERSONAL GEAR



APPENDIX E

PERSONAL GEAR

Personal gear was considered, during the study, as encompassing uniforms and individual gear, to include weapons.

Individual Gear

Without exception, personnel of all ranks rate the issue gear (belt, holster, and holder for night stick) as unsatisfactory. The time spent in upkeep of the issue gear is excessive; it presents a poor appearance; and it does not adequately support the items that must be carried. Solutions to this problem are apparently as varied as there are installations, Provost Marshals, and Commanding Generals.

Some examples of the situation present at the installations visited are as follows:

- Post A: There is no standard or uniform individual gear. Individuals are wearing issue gear or are making individual purchases of similar type commercial gear from Police supply houses or are wearing a combination of the two.
- Post B: Standard, uniform leather gear of commercial design and manufacture for all military police was obtained by local purchase through installation procurement:
 - Safariland Model 78 Sam Browne Belt, fully lined, four rows of stitching, chrome buckle; Price: \$17.77 each.

The belt overcomes all of the shortcomings of the issue gear.



- Post C: Issue web belts (black) or individual purchase of a similar commercial version are used. Individual purchase appears to be encouraged, and, although a complete set of gear costs the individual approximately \$100, it is quite prevalent on this post.
- Post D: A commercial black web belt was obtained by local purchase through normal procurement procedures -- one belt with brass keepers for each MP. All military police are uniform in appearance, however, the product was of poor quality and admittedly a mistake.
- Post E: A commercial web belt (black) and buckle was purchased for each individual by the installation. This purchase appears to have resulted in an acceptable, satisfactory product. The PM at this post is unalterably opposed to individuals expending their personal funds for equipment.
- Post F: All issue gear is worn by the military police. No installation purchase is contemplated, nor is individual purchase of commercial equipment permitted. The announced policy is that "when the Army authorizes something different, we'll wear something different".

Overall, the individual gear worn by military police is as non-standard, non-uniform, as any single category of equipment in the Army.

A few general remarks that apply without regard to a particular installation:

- The issue holster for the cal .45 has proven unsatisfactory in the law enforcement role, particularly with respect to securing the weapon when running and for the damage sustained by the seat covering in sedans due to the butt and magazine of the pistol. Further, according to supply personnel, there is no left-handed model. Prevalent throughout



the units visited was a commercial, high-rise holster for the .45.

- Users report that there is no satisfactory .38 holster for general police work, and that the commercial market is the solution to this problem.

Uniforms

There is a great diversity in the type uniform being worn by military police on garrison duty: fatigues, Army tan, and Army green. The uniform is the prerogative of the installation commander and no standardization seems appropriate. Unfortunately, there is a philosophy prevalent at some installations that military police should not look like "cops", therefore the uniform worn by the tactical troops in training and maintenance is the uniform worn by the MPs. This does little for the morale and pride of the individual MP (one post visited prohibits the wearing of the MP badge).

Overriding any dissatisfaction with the basic uniform is the overwhelming demand for a serviceable, comfortable jacket that presents a smart appearance. The issue field jacket and the green blouse fall far short of meeting this demand — in the law enforcement role. The field jacket is durable, functional, and reasonably comfortable when worn in the circumstances for which it was designed. It does not, however, present a smart military appearance. It was designed to be worn in the field under tactical conditions and not for patrol duty. To the general public, the gate guard (on installations where they are still used) and the military police patrol are what usually present the initial image of that post.

Considerable work has already been done toward the eventual procurement of a short serviceable jacket for MP garrison duty. In the opinion of the USAMPS, the USAF jacket (USAF specification MIL-J-83472) with minor modifications meets the requirement for a functional



duty jacket for the MPs.* While the acquisition of the modified AF jacket may be a fait d'accompli, a case can certainly be made for the flight jacket, sateen finish.

A discussion of the merits of the flight jacket follows:

- The flight jacket imparts a good, smart appearance to the military policeman. The flight jacket does not easily wrinkle from constant wear and does not bunch up around the equipment belt from constant sitting and standing movements.
- The flight jacket offers good protection from the weather for the time that the MP would normally operate outside of his vehicle.
 - The sateen finish of the flight jacket repels water and retards water penetration, which makes it ideal for activities in inclement weather.
 - The sateen finish retards wind penetration which makes it more effective protection from wind chill factors than a cotton jacket (TCPs and personnel control functions).
 - The flight jacket is specifically constructed to combine lightweight and warmth. These factors are ideally suited to the MP on duty.
 - The elastic cuff and waistband permit a snug fit and effective weather seal for the weather.
- With respect to safety, the flight jacket incorporates a reversible, international orange lining that offers high visibility to the military policeman during periods of reduced visibility, over long distances, or in instances where the MP wishes to be clearly identified (i.e., TCP, during hunting seasons). A key element is that the international orange posture

* Letters USAMPS, TRADOC, USANARADCOM, October and November 1978, which specify, among other items, that the USAF jacket be modified by dyeing black and retaining an orange interior.

A stylized logo consisting of the letters 'SAI' in a bold, italicized, sans-serif font. The letters are connected, with the 'S' and 'A' forming a continuous shape, and the 'I' standing slightly apart. The logo is positioned in the bottom right corner of the page.

still maintains the other advantages of the jacket.

- o The flight jacket represents a cost savings in that the total cost of the field jacket, liner and safety vest is \$44.27, while the cost of the flight jacket is \$22.90 (a savings of \$21.37). These figures are for comparison purposes, as it is accepted that prices change.
- o Maneuverability:
 - Due to its waist-length and unrestricted shoulder movement, the MP has excellent upward arm mobility when wearing the flight jacket. Although the field jacket can provide such upward mobility, its bulk does not permit an immediate action, as would be required for self-defense reactions. The addition of the equipment belt over the field jacket makes the task even more difficult.
 - Due to elastic cuffs and unrestrained shoulder movements, the MP has excellent forward reaching mobility with the flight jacket. With the field jacket, the bulk of the liner and shell causes the arm to bind at the wrist and forearm during immediate reaching actions.
 - The wearing of the service belt over the field jacket and liner creates an extremely binding situation that restricts general movement. The flight jacket does not create such a problem because the belt is not worn over the garment.
 - The flight jacket is easy to remove and/or put on between the areas of varied temperatures such as going indoors during the winter season since the belt and equipment do not have to be removed and put on each time.
- o The present sateen flight jacket has been declared obsolete and is being replaced by the Nomex Flight jacket, thus reducing cost as the item is available through the supply system. The sateen flight jacket has been effectively used as the standard MP jacket at Ft. Campbell and at various installations in Korea, to name a few. Should black be the desired color, it would appear that it would be feasible to dye the



flight jacket (provided the orange interior can be preserved).

In addition to the jacket, discussed above, other items of uniform receiving considerable attention were headgear and raingear.

All forms of headgear were encountered during the visits to installations: white hats, baseball caps, helmet liners, and on one post, the vehicular helmet. It has been reported that one other installation uses the vehicular helmet, and another post is actively pursuing the procurement of these helmets. At the post where helmets were examined by the study group, it was found that they are excellent from an appearance standpoint, comfortable, with good user acceptance. They are functional and presented a definite margin of safety over other type headgear. The cost amounted to \$17.20 each in the quantity purchased (over 50).

There is an unquestioned need for raingear that is highly visible (international orange) with provisions for wearing the badge and permitting easy access to the individual's weapon and cuffs. Several varieties of commercial origin were encountered during the visits to installations.

Individual Weapons

The controversy concerning the most appropriate sidearm for the military police, in the law enforcement role, has continued for years. Opinions vary from the presently authorized cal .45 M1911A1 through various models of cal .38 revolvers, to several different calibers of magnums.

The civilian police community uses, almost exclusively, a caliber .38 revolver, Colt or Smith & Wesson, with a 4-inch barrel. There are some exceptions, such as Stroudsburg, PA, where officers purchase their own weapons. The majority of the Stroudsburg Police, however,

The logo consists of the letters 'SAI' in a stylized, italicized, sans-serif font. The letters are white with a black outline, and they are positioned on the right side of the page, above the page number.

did purchase cal .38 revolvers.

Civilian police agencies maintain that the .38 revolver, in comparison with the .45 pistol, is a safer handgun; it is lighter and easier to carry; it is easier to maintain; it is easier to train personnel in its use; and it requires only one hand to draw, cock, and fire.

No one interviewed in the course of the study disputed these claims concerning the .38 revolver. Why, then, does the US Army persist in arming its male MPs with the cal .45 pistol?

Advantages:

- Standard sidearm in US Army
- On-hand inventories more than adequate
- Standardizes and simplifies logistical aspects
- Stopping power
- Tremendous adverse psychological effect on adversary

Disadvantages:

- Size and weight
- Users generally achieve low level of expertise
- Reportedly inaccurate
- Inherent stopping power excessive
- Requires two hands to operate
- Unsafe! (jamming into holster can arm, rounds not visible when clearing)
- Majority of users (MPs) lack confidence in their ability to effectively use weapon
- Women are authorized cal .38
- Maintenance

There are, in addition to the pros and cons, some general comments that can be made as a result of the study:

- Mixed patrols (male and female) are armed with different weapons (.38 and .45)

The logo consists of the letters 'SAI' in a stylized, italicized, sans-serif font. The letters are connected, with the 'S' and 'A' forming a continuous shape, and the 'I' is slightly separated. The logo is positioned in the bottom right corner of the page.

- Female MPs receive familiarization with the cal .45; Male MPs do not receive comparable training on the cal .38.
- Proponents of the retention of the cal .45 are as vocal as are antagonists.
- A considerable number of those advocating replacement of the cal .45 admittedly were influenced by the weapons used by the local civilian police and by television shows.
- Some female MPs expressed the opinion that they should be armed with the cal .45 "like the men".

Note: Although not specifically a commercial item, steps should be taken to authorize the female soldier supplemental issue of the pant suit. The skirt is not a satisfactory garment for police work.



APPENDIX F

MILITARY POLICE AVIATION



APPENDIX F

MILITARY POLICE AVIATION

Much of the background information contained in this appendix was provided by Bell Helicopter Textron and Hughes Helicopters of the Summa Corporation.

Historically, the law enforcement generic mission has not changed significantly. The law enforcement equipment has changed as technology advances; as an example, patrol vehicles have gone from bicycles, to patrol cars, and now to helicopters.

While patrol vehicles have changed, the patrol mission has not. Observation and response are the two facets of police patrol. See and be seen, take action when called on. Routine patrol remains law enforcement's chief weapon against crime.

Today crime is mushrooming at a fantastic rate, far in excess of population growth. The average patrolman spends perhaps only two hours a day on actual patrol. Traffic congestion and city sprawl have lengthened response time to almost unacceptable limits. In effect, many cities are, for all practical purposes, out of the patrol business. One result: a burgeoning crime rate. Over 50 major US cities have met this challenge by adopting a new patrol vehicle, the helicopter. Their crime rate increase has been slowed or stopped — even reversed, in some instances. The patrol helicopter has proven itself over many years of intensive patrol service, in cities as small as 50,000 population and as large as millions.

The helicopter is coming into the limelight. It has been the most exciting advance in the history of the force, and may prove to be the most useful crime-fighting tool in the police armory for many years to come.



In 1948 when the New York City police bought the first known police helicopter, they proved the concept and the capability. Now, helicopters are in police service around the world.

- They Serve with City Police
 - on routine patrol in high-crime areas
- With County Police
 - on emergency evacuations
- With State Police
 - during natural disasters
- With Federal Police
 - on contraband surveillance, and
- With Internationally-Oriented Forces
 - on border patrols.

The helicopter is an outstanding law enforcement vehicle with many desirable characteristics. Its strongest contribution however is based on the fact that it provides:

- an aerial vantage point for observation quite different from any other vehicle, and
- a unique form of transportation.

Sometimes the emphasis is on its ability to extend observation, or on its versatility as a transport, but more frequently the police role calls for both of these two characteristics working in harmony. Together they can create a police omnipresence or introduce a powerful element of surprise. These two unique features do not overlook the helicopter's capability to respond swiftly; in fact, the success of many observation and transport missions has been directly credited to the helicopter's short reaction time.

With the helicopter, the policeman has: — — —

- The Advantage of Height, Enabling Him to:
 - Look down into fenced areas and into alleyways to monitor suspicious activities,



discover stolen property, or follow fleeing criminals (Reports indicate that an altitude of 500-700 feet above the areas is most generally used);

- Scan large areas for movement (at 60 mph he has the capability of a quick search covering approximately 360 square miles every hour, unhindered by traffic, dead-end streets, fences or lakes);
- Penetrate glare on a water surface, making underwater objects easier to find or identify.
- A Wide Speed Range, Enabling Him to:
 - Stand off and study a particular point or area (a OH-58 can respond in 1 minute anywhere within 20 square miles, 2 minutes within 50 square miles);
 - Follow an important convoy (at the precise speeds selected by or imposed upon by the convoy leader);
 - Rush to an emergency call miles away and surprise the culprits before they can get away from the scene of the crime (Reports show that once a criminal is sighted, it is very difficult for him to evade the helicopter observer; the apprehension rate is directly affected, rising sharply as the response time is shortened.).
- The Freedom From Surface Obstacles, Enabling Him to:
 - Vary his patrol techniques and select search patterns uninfluenced by natural or man-made obstacles;
 - Monitor otherwise inaccessible areas; and
 - Cross otherwise impassible areas of choked-up traffic, bogs, lakes, etc.



- Excellent Communication Possibilities, Enabling Him to:
 - Contact any other police facility, fire-fighting headquarters, etc., using normal radio communication techniques;
 - Control a comprehensive operation from the best, or the best series, of vantage points;
 - Relay instructions long distances; and
 - Give advance notice to headquarters while en route inbound, updating the situation and shortening the turn-around time.
- The Ability to Land in Confined Areas, Enabling Him to:
 - Land on rooftops;
 - Become directly involved in the action;
 - Rescue injured personnel directly from the site of the accident;
 - Pick up samples or collect evidence.

The use of police aviation in the civil sector is becoming more and more widespread. The use of one model — the Bell Jetranger, which is the civilian version of the OH-58 Kiowa, and configured for the law enforcement role with searchlight, loudspeaker and siren — is in wide use. As of September 1978, the following agencies and activities were using this model (See Figure 1).

The very presence of a police helicopter is an effective deterrent to crime and sabotage; a benefit derived from successes due to increased powers of observation and effective control from the air. The helicopter can be equipped for a wide variety of observation and recording aids for both day and night. Examples of law enforcement roles include:



Figure 1: Police Helicopters in Use

	<u>Jet Ranger</u>	<u>Long Ranger</u>
U.S. Department of Interior	10	
Illinois State Toll Highway Commission	1	
New York City Police Department	4	
Los Angeles County Fire Department	1	
Indianapolis Airport Authority	1	
Texas Department of Public Safety	6	1
New York State Police	3	
Indiana State Police	4	
Memphis Police Department	1	
NASA	1	
Palm Beach, Fla Sheriffs Department	2	
State of Illinois	3	1
Suffolk County, NY Police Department	2	
State of Michigan	1	
North Carolina Dept. of Administration	2	
West Virginia Natural Resources Department	1	
Los Angeles Police Department	10	
Los Angeles City Fire Department	3	
Nebraska State Patrol	1	
Massachusetts State Police	1	
Pennsylvania State Police	6	
State of New Jersey	4	
New York Port Authority	1	
Arizona Department of Public Safety	2	1
West Virginia Department of Public Safety	1	1
National Park Police	1	
Maryland State Police	4	
Los Angeles Bureau of Transportation	1	
Chicago Fire Department	1	
Louisiana Department of Public Safety	4	
South Carolina Aeronautics Commission	1	
Delaware State Police	1	
Plaquemines Parish, Louisiana Council	1	
Indiana State Highway Commission	1	
Commonwealth of Kentucky	1	1
Ohio Highway Patrol	2	
Commonwealth of Virginia	1	
State of Ohio	1	
City of Ft. Worth, Texas	1	
City of Charlotte, NC	1	
Tennessee Valley Authority	1	
Treasury Department (US Customs)	4	
State of Rhode Island	1	
Bonneville Power Administration	3	
City of Dallas, Texas	2	
Minnesota State Patrol	1	
	<u>106</u>	<u>5</u>



• Monitor, Patrol

- Traffic flow
- Crowds, disturbing elements
- Seasonal areas, off-season
- Flood threatened areas
- Disaster areas
- Parade routes
- Borders
- Road blocks
- Stake-outs
- Important surface transport
- Isolated ground police units (including cars)

• Detect

- Narcotic fields and traffic flow
- Illegal dumping (land/water)
- Smuggling
- Illicit stills
- Poachers, rustlers, prowlers, trespassers
- Ruptured pipelines
- Disrupted communications lines
- Broken fences
- Fire (buildings/grass/forest/storage areas)
- Traffic blockages
- Potential hazards

• Follow, Chase or Track

- Suspicious vehicles
- Hit and run drivers
- Suspected criminals and accomplices
- Poachers

• Search For

- Fugitives and escape routes
- Victims (lost/believed drowned/strayed mental patients)
- Lost vehicles, animals
- Cause of alarm signals

• Record for Detailed Study and/or Legal Proof

- Photography; black and white, color, infrared, etc., handheld or mounted, including Polaroid, movies, and TV (both tape and instant transmission)

SAI

- Sketches and marked maps

- Survey

- Preliminary observations to determine correct action, to discover accident trends, to establish rights of way, etc.;
- Study communications and navigation requirements, routes, existing facilities, etc.;
- Assess storm, fire, and flood damage
- Quick check on street lights, traffic light functioning
- Prepare search maps
- Observe wildlife types, extent, activity, and migratory patterns.

- Aerial Control

- Disaster warning including use of loud-speaker and siren
- Command post for crowd and riot control, disasters, etc.
- Intercept tactics
- Traffic, speed checks using mile post markers, directing detours past road blocks;
- Security
- TV coverage
- Fire: Direction/Advice
Location of Backfires
Downwash/Retardants
Lay hoses, find water
- Prevent accidents through warnings
- Radio relay
- Illumination for ground forces, motorist assistance
- Escort
- Route clearance.



- Ground Control
 - Man quick roadblock
 - Traffic control, accident sites, etc.
 - Cordon aircraft accident area
 - Clear rooftops
 - Remove debris
 - Inspect abandoned vehicles.
- Public Relations (which should not be overlooked)
 - Air shows, demonstrations for schools
 - Publicity for transport (i.e., Santa Claus)
 - Parades
 - Assistance to other agencies (Civil Defense, park rangers, Coast Guard, river patrol, etc.)

It appears that there is something for everyone concerned with law enforcement. Helicopter patrol techniques are being diligently pursued as a science. A vast amount of data is available.

The success of helicopter operation can be measured by results: crime prevention or suppression, apprehension of the criminal, recovery of property, etc. In the final analysis, the true success is determined by the contribution made by the helicopter to the total community. From the community viewpoint, the highlight of the year may be one well-publicized rescue. From a police viewpoint, the highlight may be the recorded drop in the crime rate resulting from the day in, day out monotonous patrol vigil. Both are a valuable contribution to the community and would be to a military installation.

The question now arises: "Is this apparent success with law enforcement aviation transferrable to the Military Police?" All the indicators thusfar say "yes". Military Police aviation is not new to the Army. It is being used on a limited basis.

The 16th Military Police Group Aviation Section was activated on 20 May 1975 at Ft. Bragg, North Carolina. It was the Army's first police aviation section and consisted of five aircraft, seven pilots,



and nine enlisted crew members. The aircraft included two UH-1H Hueys and three OH-58A Kiowas.

Being assigned to the MP aviation section is more or less the luck of the draw. Since police training is not a prerequisite, any Army aviator is subject to being assigned to the MP aviation section. Once assigned, there is an intensive training program for both pilots and crew members to acquaint them with special support required by all military police and to further orient them to the military police operations unique to Ft. Bragg.

The primary missions include daily traffic control/surveillance and scheduled night missions using a light set, fabricated by the unit, mounted on the side of the OH-58A helicopters. The light set has three large landing lights of 500,000 candle power each. Support of the military police ground units include not only those on daily discipline, law and order missions, but also those performing combat support mission on field training exercises. A post of 130,696 acres, population in excess of 59,000, and several state highways passing through the installation, creates an enormous and active patrol area. Special problems exist on the firing ranges. Ranges are used by all military services for firing of many types of weapons of varying sizes, thereby resulting in duds of varying sizes. These ranges have to be patrolled to insure there are no unauthorized personnel removing duds. Many times while on range patrol, pilots are required to fly low level because of artillery rounds being fired overhead.

AWOL apprehension is conducted as a secondary mission. AWOL apprehension mission includes only those AWOL soldiers in custody of local authorities throughout the state of North Carolina. The MP's have narcotic, explosive detection and patrol dogs that are transported in the helicopters regularly. Aviators also fly the local area to check for marijuana fields. Many of the fields in the local area are well off the



main roads, making it difficult and time-consuming to attempt checking from the ground. Occasionally pilots are called upon to transport evidence to the criminal investigation lab at Ft. Gordon, GA. Assistance on an emergency basis is provided to the local law enforcement agencies. Care is exercised to insure that they not infringe upon the Posse Comitatus Act. Local police authorities request support through the MP operations center. Including all the missions listed and special missions, the aviation section flies about 1250 hours annually and has had no accidents since the section was activated on 20 May 1975.

In September 1975, the Commander, III Corps and Fort Hood, requested TRADOC Combined Arms Test Activity (TCATA) assistance in evaluating the concept of employing helicopters equipped with high intensity searchlights in support of nighttime garrison military police operations. TCATA expanded the scope of this innovative test to include tactical MP operations and combined arms operations. The test was named SKYWATCH. The expanded test was divided into three phases:

Phase I - To assess the employment of the helicopter, equipped with a high intensity searchlight, in support of garrison MP operations.

Phase II - To assess the employment of the helicopter, equipped with a high intensity searchlight, in support of tactical MP operations.

Phase III - To assess the employment of the helicopter, equipped with a high intensity searchlight, in support of combined arms operations.

Due to outside considerations, the test was terminated in January 1977 since sufficient data had been collected to address the garrison MP operations objective. Although the tactical applications were not evaluated during the SKYWATCH test, the findings and conclusions of Phase I do give definite insight into other potential uses. The detailed results of the test are contained in SKYWATCH Final Report — TCATA Test Report TT 1083, 11 May 1977.

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What is obviously suggested by this background is a detailed examination of the feasibility of employing military police aviation on a wide scale in CONUS. It is recognized that this would be a major decision, and a more detailed analysis than possible in this study is required. There are major considerations that must be examined and analyzed, such as:

- Personnel
- Training
- Deployment
- Doctrine
- Costs (acquisition/modification)
- Other.

In addition, helicopters configured for the garrison law enforcement mission initially appear to be applicable to the military police combat support role in the theater of operations. To briefly illustrate this point, FM-19-4 states:

"Aviation assets assigned to MP elements, or providing GS/DS, dramatically enhance the timely response and flexibility of military police, especially in the following areas:

- Improving command and control, especially by extending communications capabilities;
- Determining security deficiencies or enemy interdiction and directing reaction to the threat;
- Providing effective and timely overwatch of extended lines of communication, including convoy cover, location of congestion and interruption of MSR, and intransit security;
- Rapidly reacting to threat, obstruction and congestion on road networks by expediting relocation of MP elements;
- Timely coordination with supported headquarters and subordinate MP elements; and
- Evacuating of selected PW for special protection or interrogation."



There are two basic conclusions: First, the police helicopter has proved itself in every facet of modern police work. Its strength lies in the extension it provides to observation and the versatility it applies to responsive transportation. Quick reaction has always been the policeman's best ally and the helicopter supplies it reliably and in abundance throughout both these major roles.

Second, use of this modern law enforcement asset must be planned around a mission. It must be placed where the job can be done effectively. In order to do this for the military police, a comprehensive study should be accomplished, using as a starting point the results of the SKYWATCH test previously discussed. This comprehensive study should, as a minimum, address the considerations mentioned earlier. In addition, it would be advisable to construct a test program to actually measure the effectiveness of military police aviation in a garrison law enforcement role.



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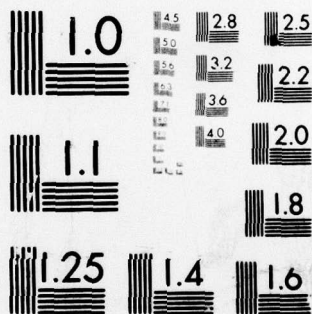
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APPENDIX G
LABORATORY



APPENDIX G

LABORATORY

The responsibility for Forensic Laboratories rests with the CID Command. There are three such laboratories: CONUS, Germany, and Japan. The laboratory at Ft. Gordon, Georgia, the largest of the three was visited by the study team. Overall, the lab was impressive, staffed by conscientious, knowledgeable people. The technical equipment on-hand is excellent and is an example of the success of the Equipment Up-Date Program started by CID Command in approximately 1977.

All of the equipment is commercially procured and reflects the state-of-the-art or is in the process of being replaced. There was nothing to indicate or justify an Army R&D effort in this area. The priority of acquisition is established among the three laboratory Commanders.

The only shortcoming was the facility itself. The various sections of the laboratory are housed in ten separate small building which are old and marginal as to physical condition. Obviously, ten separate buildings housing the Laboratory make evidence handling and security a major problem, decrease efficiency and should be changed as soon as possible to a single building. It is understood that a move to a single facility is programmed in the future and efforts should be expanded to assure that the consolidation takes place and that acceleration, if possible, is accomplished.

One item that is missing from the Laboratory, that is presently available, is the Criminalistics Laboratory Information System (CLIS). The Laboratory Commander stated that it was his intention to avail himself of this service at a future date, however, it could be available now.

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CLIS is a project developed under a LEAA grant awarded to the California Crime Technological Research Foundation for project Search and continued in 1974, by Search Group, Inc. This project has included many members of the Forensic Science Community including many laboratory representatives throughout the United States. The purpose of the project was to develop the feasibility of giving access to information now in reference files and instrumental data banks so that maximum use of new instruments is available to law enforcement laboratories. At the present time, "General Rifling Characteristics File" information is available from FBI facilities to selected prototype laboratories through NCIC (National Crime Information Center) in Washington, DC.

In the near future, Infra Red Data and a Mass Spectral Data File should be available to the prototype laboratories through these facilities. After testing and approval the information will be made available to other laboratories such as the CIDC Laboratory at Fort Gordon. Since a State NCIC is available at Fort Gordon, a Laboratory terminal would be the only necessity to receive this information.

This certainly should be followed closely by the CID Command and CO Fort Gordon CIDC Laboratory, as this is considered by a large number of authorities in the U.S. to be a major breakthrough for forensic laboratories as the system is supplied to law enforcement laboratories without charge.

A possible improvement in the administration of the equipment program would be the addition of a laboratory expert to the staff at HQ CID Command. There is, at the present time, no central office or spokesman representing the laboratory effort. There would appear to be a need for such a person — probably responsible to the Commanding General, to monitor and supervise the operation of the laboratories and to coordinate and follow through on their requirements. Such a person should be



well-grounded in laboratory operation and equipment, investigation (evidence) matters, and administration. If manpower constraints preclude the authorization of the space, consideration should be given to the use of an expert consultant on a part-time basis.

While not specifically related to CNDI-LEE, one observation made at the laboratory was the following: It is the opinion of the forensic science experts that knowledgeable and practising scientists involved in laboratory work should be involved in the training of Criminal Investigators so that there is a full appreciation of the procedures required in the preparation of evidence for lab examinations and an awareness of what evidence of an unusual nature can often be found at a crime scene. For this reason, it is believed that some of the more knowledgeable members of the laboratory staff at Fort Gordon should develop this training relationship in this most important function of training Crime Investigators. (Specifically at Ft. McClellan.)

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APPENDIX H

FOLLOW-ON ACTIONS



APPENDIX H
FOLLOW-ON ACTIONS

Several areas requiring further study surfaced during the course of this study effort. The authors believe that in order to investigate fully all of the ramifications incident to the effective integration of CNDI-LEE into the Military Police activities, these areas should be pursued in separate study efforts.

1. A comprehensive study of the desirability/effectiveness of police helicopter aviation in the garrison law enforcement role. To investigate and determine, for example:
 - Its effect on crime rate, apprehensions, response, etc.
 - A basis for allocation:
 - large post - small post?
 - what criteria should be used to determine "size" of post?
 - impact of similar resources nearby
 - Is it feasible and practical?
 - Is it reasonably cost effective?
 - Does its value carry over to the combat role?
2. A comprehensive study of the feasibility and worth of a word processing center in some (or all) garrison law enforcement stations.
 - What would be the impact on garrison personnel allocations?
 - Cost effective on all posts or some posts?

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- What criteria determine the above?
3. In-depth study of the advisability and costs of the integration of a management information system (computer) into the station console of garrison law enforcement stations.
- Is it cost effective?
 - Impact on personnel?
 - Are required skills available?
 - A type system for small and medium size police agencies is presently marketed by Multi-Information Systems, Inc., which is defined as including the following sub-systems:
 - calls for service
 - offense/supplement reporting
 - jail arrest reporting system
 - monthly uniform crime reporting system
 - monthly crime summaries
 - juvenile crime system
 - personnel system
 - witness recording system
 - suspect persons/vehicle system
- Is this responsive to MP reporting requirements? What benefits would accrue?



APPENDIX 1

ABOUT THE AUTHORS



APPENDIX I

ABOUT THE AUTHORS

Listed below are brief resumes of the principal personnel involved in the study effort and the preparation of this report:

ROWLAND B. SHRIVER, JR., Principal Investigator

At present, Director, Security Studies, SAI Center for Security and Policy Studies. He has extensive and diversified experience in command/management, operations, personnel and security. Mr. Shriver retired after 33 years of military service with the rank of Colonel in 1975 and joined SAI. Since joining SAI, Mr. Shriver has participated in, or managed, numerous studies concerned with a broad spectrum of management, security, and operational matters. He managed and was the principal author of the study "Countering Terrorism on Military Installations". Mr. Shriver managed the U.S. Army's world-wide system of inspection and evaluation of the security and technical aspects of nuclear-capable units and reactors for the last four years of his military service and is a recognized expert in the field of nuclear weapons security.

USAC & GSC/Spanish Army General Staff School/US Army War College

KATHLEEN M. NARDINI

Ms. Nardini is an experimental and research psychologist and has extensive experience in the design and conduct of experiments in the areas of human factors, information processing, and in the development of evaluation methodologies for system and human performance. She has been involved in specific projects concerning intelligence production activities and command and control functions.



Ms. Nardini has had experience in the academic community prior to joining SAI, both in the research field and the teaching field of psychology.

She is a member of the National Honor Society in Psychology.

University of Maryland, B.A., Psychology/ Towson State University, M.A., Psychology.

PETER R. NOWAK (Consultant)

Mr. Nowak is a retired military police officer with considerable experience in command and staff positions. He commanded a military police organization in the Republic of Korea consisting of 1100 Korean and U.S. personnel in 10 separate units located in 12 different locations, providing law enforcement as well as physical security support. Mr. Nowak also served as a confinement officer in CONUS and VIETNAM. Additionally, Mr. Nowak has served as a staff officer in the field of planning, particularly logistics and MP equipment. He has been assigned to USAMPS and subsequently served as a member of federally oriented study teams concerning matters of security and threat analysis.

Gannon College, B.S./University of Alabama, M.B.A.

DR. BRIGGS J. WHITE (Consultant)

Dr. White retired from the Federal Bureau of Investigation in 1975 after being involved with the laboratories of the FBI for 35 years. His positions with the laboratories ranged from Special Agent to Assistant Director of the FBI in charge of FBI laboratories. This position involved supervision of approximately 430 scientists and technicians. It involved the establishment of a large training and education center for Forensic Scientists from local and government laboratories and the development

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of specialized research facilities. Dr. White is a Founding Member and Fellow of the American Academy of Forensic Sciences, and was the first Chairman of the Governing Board of the American Society of Crime Laboratory Directors.

Sterling College, B.A., Chemistry/University of Colorado, M.A.,
Chemistry/University of Colorado, Ph.D., Chemistry

